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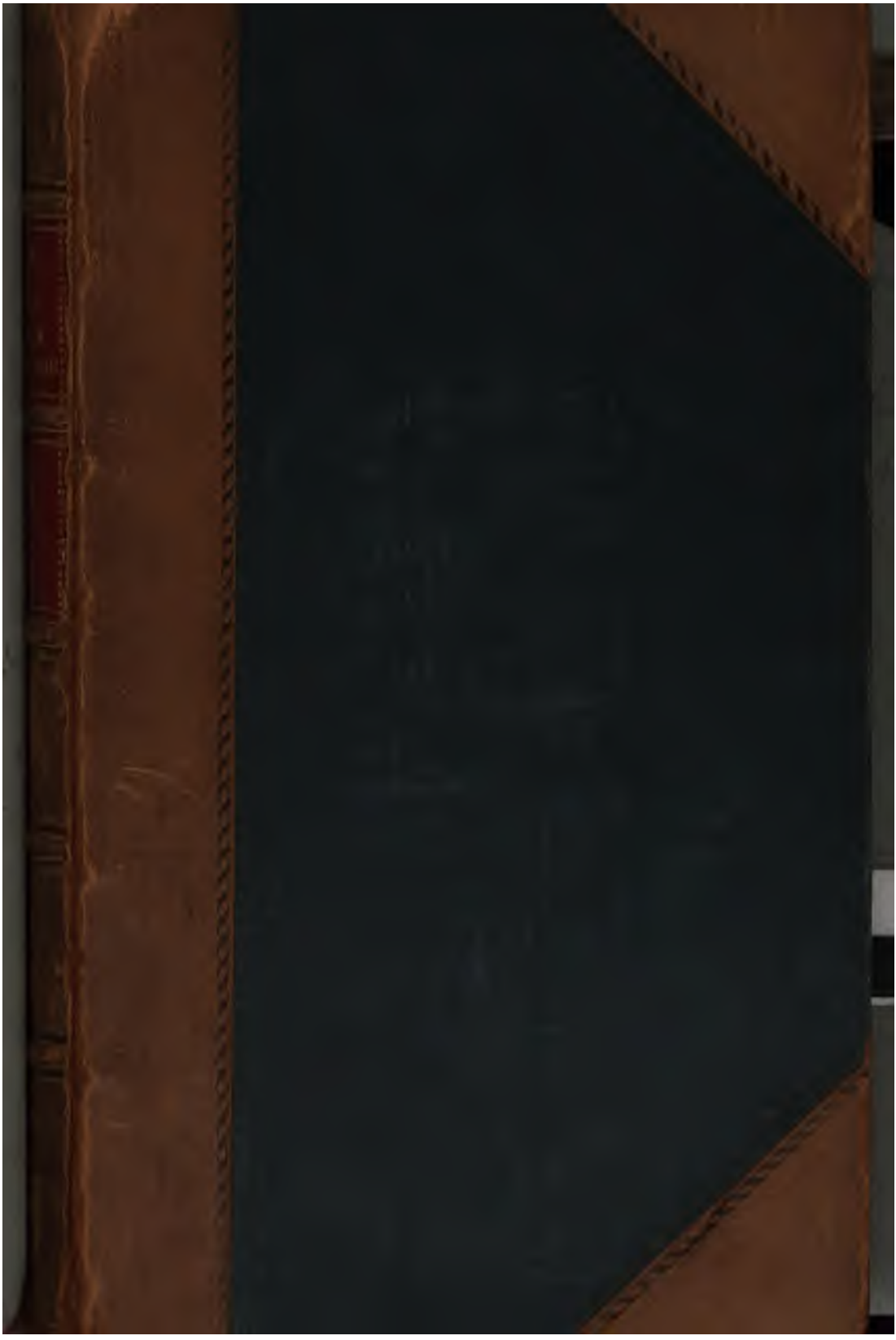

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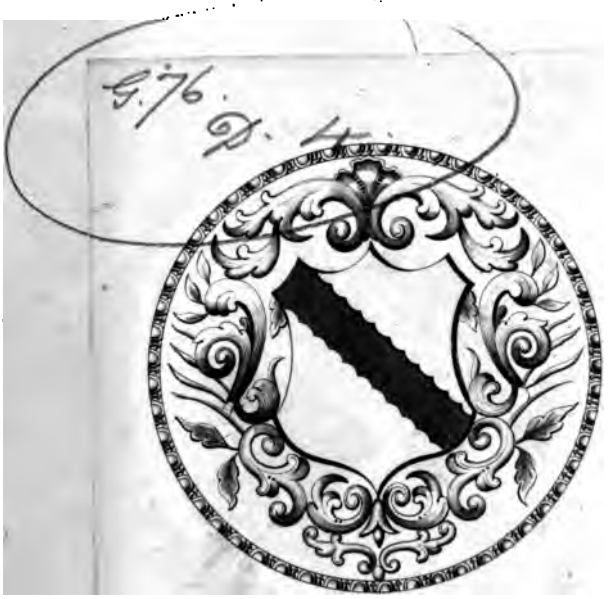

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SYNOPSIS

MUSCORUM FRONDOSORUM

OMNIUM HUCUSQUE COGNITORUM.

AUCTORE

Dr. CAROLO MÜLLER.

PARS SECUNDA.

MUSCI VEGETATIONIS PLEUROCARPICAE.

BEROLINI

SUMPTIBUS ALB. FOERSTNER.

1851.

SUBCLASSIS II.

Pleurocarpi.

Fructus lateralis, e gemma distincte laterali oriundus.

I. Distichophylla.

Folia in series duas oppositas disposita.

Trib. XXI. PHYLLOGONIACEAE.

Folia horizontaliter inserta, sed verticaliter imbricata, amplexicaulia, e cellulis angustissime linearibus *prosenchymaticis* in membranam veluti homogeneam conflatis areolata, *basi auriculata, ad auriculas cellulis alaribus orbiculariter dispositis minutis parenchymaticis incrassatis* praedita, laevissima.

Caulis truncicolus repens, ramis pendulis pinnatis nitentibus elegantibus frondoso-compressis, *Drepanophyllum v. Neckeras* in memoriam redigentibus; folia complicato-concava. E structura interna *Pseudopilotrichis* maxime proximae!

Gen. I. Phyllogonium Brid.

II. p. 671. — *Pterigynandrum*, *Pterogonium* et *Hypnum* antiq.

Nomen graecae originis, florem femineum in folii axilla inclusum declarans, e vocibus *φύλλον folium* et *γόνος suboles* ductum.

Calyptra *conico-mitraeformis.* Peristomii *simplicis dentes sedecim aequidistantes subulati integri.* Theca exannulata.

Patria. Regiones aequinoctiales, ubi loca editiora frigidiora habitant.

1. **Ph. fulgens** Brid. (II. p. 671.); *dioicum;* ramificatio frondiformis in stipite brevi nudo *late foliosa* complanata *rigida aureo-nitens,* breviuscula bipollicaris, sed ramo communi saepe flexuose et angustissime elongato longississima, simpliciter pinnata, elegantissima; folia caulina *late-oblonga,* apice excavato recurvo brevi acutiusculo, *marginibus plus minus involutaceis,* integerrima, *auriculis majusculis, cellulis alaribus intense fuscis, in orbiculum majusculum redactis;* perichaetialia late convolutacea, longe flexuose et angustissime acuminata, infima minuta late ovata obtusiuscula; theca in ped. parum exserto minute ovalis operculo conico et tenuiter oblique subulato; dentes angusti flavidi transverse trabeculati.

Pterigynandrum fulgens Hdw. Musc. Fr. IV. t. 39. — *Pterogonium fulgens* Sw. Fl. Ind. Occ. III. p. 1776. — *Hypnum fulgens* Sw. Prodr. p. 140. — *Phyllog. viride* Brid. II. p. 673, ramus communis angustus elongatus! — *Ph. callichroum* Brid. Hb. seu *Pterigynandrum viscosum* P. B. Prodr. p. 87! ex insulis Mascarenis et Tristan d'Acunha. — *Hypn. naviculare* Brid. II. 540!

Patria. America aequinoctialis, ubi frequentissime quidem, sed rarissime fertile viget. Insula Bourbonis, altitud. 6000′: Bory St. Vincent. Tristan d'Acunha: Aubert du Petit Thouars.

Pl. mascula femineae similis, floribus multis solitariis turgide gemmaceis, foliis perig. late ovatis convolutaceis, infimis minutis obtusiusculis, superioribus sensim acuminatioribus acutis, basi teneris, cellulis alaribus ut in perich. carentibus. Anth. elongata cernua copiosa, paraph. pallide aureis. Calyptra paraphysibus nonnullis erectis basi subpilosa ab Hedwigio dicitur.

2. **Ph. elegans** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 548.); vage ramosum *humile,* minutum splendi-

dissimum, ramis subsimplicibus brevibus compressis, foliis arcte et concinne imbricatis oblongis subcymbiformibus *obtusis* compresse carinatis integerrimis; theca in ped. brevi *suberecta obovata*, operculo conico rostrato, calyptra mitraeformis subpilosa, basi lacera. †.

Patria. In sinu Insel-Bay Novae Seelandiae: J. D. Hooker.

II. Tristichophylla.

Folia in series duas rectas oppositas caulí superiori insertas disposita; in caule inferiore series tertia media foliis minoribus stipulaeformibus, *Selaginellarum* foliis intermediis aemulantia.

Seriei tertiae folia in series proprie duas sed imbricatione plerumque densa vel remotissisima obsoletas disposita alterna melius putanda videntur.

Trib. XXII. HYPOPTERYGIACEAE.

Cellulae folii *prosenchymaticae* ubique aequales.

Gen. I. **Hypopterygium** Brid.

II. p. 709. — *Pterygophyllum* Brid. — *Hookeria*, *Rhacopilum*, *Pterigynandrum*, *Leskea*, *Pterogonium* et *Hypnum* al.

Nomen e graecis vocibus *ὑπό* et *πτερύγιον* sub alula, ob situm floris feminei sub tutela folii stipulaeformis ductum.

Calyptra *conica latere fissa igitur dimidiata.* Peristomium hypnoideum duplex. Externum dentibus sedecim lanceolato-subulatis transverse trabeculatis, linea longitudinali exaratis, internum membrana carinato-plicata elata in dentes articulatos sedecim, ciliis tenuibus interjectis, producta.

Patria. Regiones tropicae et subtropicae, ubi in montes frigidos ascendunt.

Sectio I. **Euhypopterygium.** Plantae dendroideo-ramosae, caule primario repente, stipites apice veluti in frondem filiciformem planam dendroideo-ramosam ramificatos, inferne foliis remotis squamaeformibus obtectos, fragiles emittente, elegantes speciosissimae.

I. *Ramificatio simplex.*

1. **H. Struthiopteris** Brid. (II. p. 716.); stipes erectus, e basi jam ramosus; ramificatio frondiformis basi et apice attenuata, medio dilatata, ramulis simplicibus subflexis; folia parum concava lanceolato-acuminata, nervo excurrente flexuoso cuspidata, fragilia, ubique albescentia et tenuiter marginata, remote eroso-denticulata, e cellulis incrassatis rotundatis areolata; stipulaeformia multo minora anguste lanceolata longe cuspidata, basi subcordata.

Pterygophyllum Struthiopteris Brid. Mant. Musc. p. 151. — *Hypnum Struthiopteris* Schw. Suppl. I. II. p. 182.

Patria. Insula Bourbonis: Commerson.

Notis designatis cum nulla alia specie confundenda, memorabilis, tenella.

II. *Ramificatio fasciculata dendroidea.*

1. *Ramif. speciosa valde divisa.*

2. **H. Thouini** Mont. (Ann. d. sc. nat. 1845. IV. p. 86.); *dioicum;* speciosum; stipes elatus crassiusculus, foliis squamaeformibus *appresso-vaginantibus late ovatis obtusis* evanidinervibus, ramificatione frondiformi oblique posita subtriangulari-orbiculari dilatata robusta, ad basin fructibus erectis aggregatis instructa, ramis simplicibus plerumque pinnatis flavo-viridibus; folia caulina obliqua late ovata, basi angustata, apice breviter acuminata, *flavo*-marginata, superne minute serrata, e cellulis pachydermibus inanibus areolata, nervo asymmetrico *crasso flavo* evanido abrupto praedita; folia ramulina angustiora, ad unum latus plus quam ad alterum argute serrata; folia stipulaeformia multo minora regulariter ovata acuminata argute serrata, nervo excurrente symmetrico flexuoso tenuiore; perichaetialia *valde exserta, longe lanceolato-acuminata* symmetrica *immarginata integerrima, nervo tenuissimo evanido, cellulis multo tenerioribus longioribus laxioribus;* theca in pedunculo longiuscule exserto flexo pendula dolioliformi-oblonga, ad insertionem plicato-im-

pressa; dentes ext. lati, interni in membrana longissima subrugulosa haud carinati, ciliis binis cohaerentibus interjectis, operc. conico-acuminato obtuso, theca dimidio minori.

Ic. in Gay Hist. de Chile. Bot. Crypt. t. 2. f. 4. — *H. speciosum* C. Müll. Linn. XVIII. p. 683. — *Hypnum Thouini* Schw. Suppl. III. II. 2. t. 289. — *H. Arbuscula* P. B. Prodr. p. 61? — *Hypopt. Arbuscula* Brid. II. p. 717.

Patria. Ad fretum Magellanicum, a Commerson primo lectum cl. Schwägrichen dedit Pr. Thouin. Chile: Philippi et C. Gay.

Planta omnium congenerum speciosissima secunda, notis cursive impressis facile discernibilis, partibus omnibus robustis. *H. filiculaeformi* longe recedenti proximum.

3. **H. filiculaeforme** Brid. (II. p. 712.); *dioicum;* speciosum; stipes elatus crassus, foliis squamaeformibus albidis parce obsitus, ramificatione longe et dilatate frondosa valde divisa, ramis pinnatis, *ramulos stoloniformes dense foliosos breves ex axillis foliorum emittentibus;* folia caulis communis magna, late ovata breviter acuminata, apice denticulata planiuscula, pallide viridia, nervo evanescente, *immarginata;* ramulina multo minora, stipulaeformia minuta; omnia rotundato-prosenchymatice areolata; perich. lanceolata obsoletinervia; thecae aggregatae, in pedunculis longiusculis pendulae magnae oblongae, sub ore constrictae; dentes ext. lati interni angusti, ciliis binis interpositis.

Pterygophyllum filiculaeforme Brid. Mant. Musc. p. 151. — *Hookeria filiculaeformis* Sm. Trans. of Linn. Soc. IX. p. 278. — *Hypnum filiculaeforme* P. B. Prodr. p. 64. et Schwägr. Suppl. III. II. 2. t. 281. — *Leskea filiculaeformis* Hdw. Sp. Musc. p. 212. t. 50.

Patria. Insulae Australes: Banks.

H. Thouini proximum, sed notis illustratis facile discernibile.

2. *Ramif. tenella dichotoma.*

a. *Areolatio folii rotundata.*

4. **H. concinnum** Brid. (II. p. 714.); *dioicum; H. laricino* ex habitu simile, sed folia e basi *subauriculata oblonga breviter acuminata fragilia, e cellulis rotundatis incrassatis diaphanis areolata, limbo incrassato albido circumducta,* apice denticulata, nervo *in apicem excurrente flexuoso albido;* stipulaeformia *lanceolata longe acuminata,* e reliquis caulinis similia; perich. *convolutacea longissime acuminata enervia vix denticulata* immarginata; thecae aggregatae in pedunculis *brevibus erectae* oblongae, operculis longe et recte subulatis.

Leskea concinna Hook. Musc. Exot. t. 34.

Patria. In Sinu Dusky-Bay Novae Seelandiae leg. Menzies 1791. Insula Aucklandi antarctica: J. D. Hooker.

Perist. dentes interni ciliis carere dicuntur; dubitamus.

b. *Areolatio folii laxa.*

α. Fila setacea inter folia stipulaeformia.

5. **H. ciliatum** Brid. (II. p. 710.); *dioicum;* tenellum; stipes e basi foliosus, ramis simplicibus v. semel dichotomis; folia caulina late ovata, *ciliato-acuminata,* margine *haud limbato ciliata,* evanidinervia, planiuscula, e lutescente viridia; stipulaeformia multo minora et angustiora, anguste lanceolata excurrentinervia, longe ciliata; filis setaceis acutis utrinque secus fol. stipulaeformium, perichaetialia integerrima; theca solitaria brevipedunculata *erecta* oblonga. †.

Pterygynandrum ciliatum Hdw. Sp. Musc. p. 84. t. 17. — *Pterogonium ciliatum* Schw. Suppl. I. II. p. 108.

Patria. Insulae Australes: Banks.

6. **H. commutatum** C. Müll.; *dioicum; H. tamarisci* simillimum; stipes rectus crassiusculus foliis squamaeformibus parvis ovatis tenuissime oblique acuminatis enervibus obsitus; folia caulina late ovata oblique acu-

minata asymmetrica superne argute serrata, nervo longiusculo evanido praedita, immarginata (?), stipulaeformia *anguste perfecte lanceolata argute serrata*, nervo evanido praedita, *filis propriis longiuscule aculeiformibus utrinque commixta;* perichaetialia ovato-oblonga, acumine tenuissimo longiusculo, enervia; thecae aggregatae turgide ovales, basi rugoso-plicatae, peristomio congenerum. †.

H. tamariscinum Brid. II. p. 715 ex parte. — *Leskea tamariscina* Hdw. Sp. Musc. Fr. p. 212. t. 51! spec. Jamaicensibus exclusis. — *Hypnum tamarisci* Sw. Fl. Ind. Occ. III. p. 1825; specimina ab auctore ex insulis maris pacifici relata.

Patria. Insulae Australes.

7. **H. scutellatum** C. Müll.; *H. commutato* simillimum, folia laxa siccitate crispa late cordata *obtusiuscula* apiculata *immarginata* serrata evanidinervia, viridia; stipulaeformia *rotundata* apiculata serrata, filis propriis aculeiformibus (spiculis Tayl.) brevioribus strictis fragilibus; thecae medio caulis aggregatae, infra sparsae in pedunculis crassiusculis apice incurvis incrassatis, ovatae subaequales celluloso-tuberculatae, operculis rostratis subinclinatis. †.

Hypnum laricinum Hook. Musc. Exot. I, spec. in Capite bonae spei collectis in tab. 34 delineatis exclusis!

Patria. Ex Andium regione temperata retulit primus Humboldt, in monte Pichincha Andium Quitensium legit W. Jameson m. Nov. 1846.

β. Fila setacea nulla.

† *Folia albide limbata.*

8. **H. laricinum** Brid. (II. p. 714 ex parte!) *dioicum;* tenerum, valde repens, stipites multos tenues longiusculos in ramificationem teneram simpliciter pinnato divisam productos emittens; folia caulina e basi lata asymmetrica ovato-acuminata, margine *e cellularum serie unica vix limbata*, irregulariter serrulata, *ubique grosse laxe reticulata et mollia*, utriculo primordiali instructa, nervo tenui evanido; stipulaeformia minora, sym-

metrica, perfecte ovata acumine longiusculo laxe reticulato terminata, carinata, nervo tenui obsoleto in cellulas elongatas laxas molles dissoluto et in acumen excurrente, e reliquis caulinis similia; perich. longiuscule lanceolato-acuminata, tenerius reticulata, tenuissime limbata integerrima; theca in ped. longo rubro ovata nutans, operculo conico rostrato obliquo.

Hypnum laricinum Hook. Musc. Exot. t. 35, excl. spec. in Andibus collectis!

Patria. Prom. bonae spei, ubi Menzies primus 1791 legit et in insula Franciae.

H. tamarisci simillimum, sed areolatione folii et limbo marginis longe recedit.

9. H. tamarisci Brid. (II. p. 715 ex parte.); *dioicum; H. laricino* simillimum, sed robustius, folia *minora angustiora laxissime* grosse reticulata, *distinctissime* marginata.

Pterygophyllum tamariscinum Brid. Mant. Musc. p. 154 ex parte — *Hookeria tamariscina* Sm. Trans. of Linn. Soc. IX. p. 279 ex parte. — *Hypnum tamarisci* Sw. Fl. Ind. Occ. III. p. 1825, excl. spec. insulae Franciae, ad *H. laricinum* pertinentibus et spec. maris pacifici insularum speciem novam sistentibus. — *Leskea tamariscina* Hdw. Sp. Musc. Fr. p. 212. t. 51. in insula Jamaica collecta.

Patria. Jamaica insula: Swartz in truncis arborum inter muscos sylvarum regionis frigidioris sterile legit.

10. H. incrassato-limbatum C. Müll.; *dioicum; H. laricino* simillimum, sed paulisper robustius, folia e cellulis *multo densioribus minoribus magis incrassatis et pachydermibus* areolata, *latius incrassate limbata superne denticulata;* stipulaeformia latiora; omnia utriculo primordiali instructa igitur chlorophyllosa; perich. longius acuminata; thecae aggregatae longipedunculatae, nutantes obovales turgidae, operculis cupulatis rubris longe et oblique subulatis; dentes ext. lati, ciliis binis valde nodosis fragilibus inter dentes internos anguste carinatos tenuiter subulatos positis.

Patria. Brasilia, insula Stae Catharinae, ad truncos arborum sylvarum ad flum. Itajahi, lapides sylvarum montos. habitans. Jul. Oct. Pabst 1847 legit.

11. **H. didictyon** C. Müll.; *H. incrassato-limbato* simillimum, sed folia caulina oblongo-acuminata, limbo latiusculo albido incrassato homogeneo apice parce denticulato praedita *basi cellulis laxis magnis apicem versus minoribus* pellucidis, utriculo primordiali tenui instructis.

H. laricinum Hook. et Wils. in sched. musc. antarct.

Patria. Insula Eremitae antarctica: J. D. Hooker.

12. **H. nivale** C. Müll.; *H. incrassato-limbato* simillimum, sed robustius, folia *majora, haud incrassate sed laxius marginata, apice robuste argute serrata,* nervo *lato constanter in furcam saepe pluries divisam partito multo longiore,* cellulis majoribus *minus chlorophyllosis, vel chlorophyllo carentibus;* stipulaeformia *latius* cordato-ovata, acumine recto latiusculo, minutius serrata et perfecte marginata obsoletinervia; perich. lanceolato-acuminata enervia elongate reticulata convolutacea; thecae aggregatae in pedunculis longiusculis flexuosis rubris pallescenti-rufae, turgide oblongae sub ore coarctatae, operculis cupulatis longe et oblique subulatis; perist. *H. incrassato-limbati.*

H. tamariscinum C. Müll. Linn. XIX. p. 213.

Patria. Venezuela, in montibus nivalibus prov. Meridae: Moritz. No. 70. 150.

H. tamarisci praeterea utriculo primordiali cellularum ampliorum laxiorum robusto distat. Folia madefacta aquam flavam colorant.

13. **H. rotulatum** Brid. (II. p. 713.); *dioicum;* stipes brevissimus, ramificatione *tenella rotulata* ramulis dense approximatis et dense foliosis, parce dichotomis; folia *parva late ovata obtusa mucronata, e cellulis amplis robustis* areolata mollia, tenuiter marginata, superne serrulata, evanidinervia, albescentia; stipulaeformia multo minora *mucronato-cuspidata,* vix denticulata, nervo in

mucrone cum margine folii limbato connato; perichaetialia perfecte lanceolata acuminata longiuscula, basi laxe elongate areolata, obsoletinervia carinata, integerrima, thecae subaggregatae in pedunculis longis superne arcuatis perfecte pendulae oblongae; dentes longe subulati, interni anguste carinati, in membrana longa positi, ciliis binis interjectis.

Pterygophyllum rotulatum Brid. Mant. Musc. p. 151. — *Hookeria rotulata* Sm. Trans. of Linn. Soc. IX. p. 279. — *Leskea rotulata* Hdw. Sp. Musc. p. 213. t. 51. — *Hypnum rotulatum* P. B. Prodr. p. 69.

Patria. Insulae Australes: Banks.

Notis editis primo visu ab omnibus congeneribus diversum.

†† *Folia flavide limbata.*

14. H. flavo-limbatum C. Müll.; dioicum; tenerum; stipes brevissimus in ramos elongatos dichotome partitos flaccidos divisus; folia caulina pallida, angustiuscule ovato-acuminata, parum asymmetrica, limbo flavo crasso paullo denticulato circumducta, e cellulis parvis diaphanis subpachydermibus inanibus areolata; nervo flavo evanido; stipulaeformia late cordato-ovata, longiuscule acuminata, nervo carinato in acumen dissoluto, marginata denticulata; perich. longe lanceolato-acuminata tenera immarginata integerrima; thecae aggregatae in pedunculis longissimis flavidis flexuosis minute ovales horizontales; dentes ext. angusti, interni in membrana breviuscula angusti, ciliis binis breviusculis.

Patria. Nepal.

Ab omnibus affinibus notis illustratis certe refugit.

Hypopterygia incerta.

1. H. pennaeforme Hsch. (Linn. XV. p. 143.); monoicum; caulis secundarius bipollicaris, inferne simplex, foliolis minutis squamaeformibus remotis erecto-patentibus latissime cordato-ovatis longe acuminatis integerrimis enervibus pallidis obtectus, superne pinnato-ramo-

sus, dendroideus, ramis simplicibus v. compositis patentibus complanatis; folia caulina imbricato-disticha, oblique inserta, patentia, ovato-lanceolata obliqua mucronulata, apicem versus magis magisve grosse et profunde serrata, pellucida, intense viridia, nervo distincto concolori supra medium evanido, cellulis anguste linearibus, basi laxioribus; stipulaeformia remota subappressa minora ovata profundius serrata; perich. late oblonga vaginata longe acuminata integerrima enervia, interiora sensim angustiora, paraphyses saepe folioliformi-cellulosas includentia; theca in ped. semunciali solitario erecto apice curvato laevi badio horizontalis elongato-pyriformis; perist. d. ext. ferruginei costato-trabeculati, superne nodosi albicantes, int. aequilongi lanceolato-subulati carinati solidi, ciliis binis capillaribus brevioribus hyalinis reticulatis. †.

H. pennaeforme Brid. II. p. 717? — *Hypn. pennaeforme* Thunb. Prodr. Fl. Cap. II. p. 175?

Patria. Prom. b. spei, inter Omsamwubo et Omsamcaba, locis sylvestribus umbrosis ad rupes, alt. 800 pedum, 14. Majo 1832.: Drège. In sylvis Houtniquas Thunberg legit.

2. H. lutescens Hsch. (Linn. XV. p. 144.); caulis secundarius tripollicaris erectus dendroideus bipinnatus, inferne foliolis minimis remotis squamaeformibus erecto-patentibus ovato-acuminatis integerrimis evanidinervibus obtectus, superne ramis patentissimis compressis; folia erecto-patentia laxe imbricata disticha oblique inserta, erecto-patentia, oblongo-ligulata, obliqua mucronulata, caviuscula, apice serrata, pellucida, luteo-viridia, nervo obscuriore lato apicem versus evanescente, cellulis linearibus angustissimis; stipulaeformia remota subappressa ovata acuta profunde concava serrulata. †.

Patria. Prom. b. spei, locis non designatis: Drège.

Sectio II. **Rhacopilum** P. B. Prodr. p. 36. Brid. II. p. 718 sub nomine *Racopili* corrigendo. — Plantae procumbentes vage irregulariter pinnate ramosae.

15. **H. tomentosum** C. Müll.; *monoicum;* folia e basi brevissime *angustiore asymmetricâ oblonga, lanceolate vel ovato-lanceolato-acuminata, apice recurva denticulata v. serrulata, plana,* sublaevissima, nervo in cuspidem longam exeunte viridi, cellulis viridibus mollibus; stipulaeformia *e basi late cordata lanceolatâ* longissime acuminata et cuspidata, denticulata v. integra; perich. convolutacea late ovata longissime acuminata cuspidata denticulata, laxius reticulata; omnia immarginata; theca in ped. elongato cernuo-cylindrica inclinata striata magna, operculo turgide cupulato longe rostrato, calyptra latiuscule dimidiata parum hirta; perist. longissimum.

Racopilum tomentosum Brid. II. p. 719. — *R. mnioides* P. B. Prodr. p. 87. forma humilis, foliis parvulis obtuse lanceolatis, vix denticulatis, ex insulis Mascarenis relatum. — *R. insigne* Hsch. Sieb. Pl. Ins. Trinitatis No. 19., foliis magis diaphanis et distiche complanatis. — *Hookeria tomentosa* Greville. — *Hypnum tomentosum* Hdw. Musc. Fr. IV. p. 48. t. 19. — *H. mucronatum* P. B. Prodr. p. 66, foliis minute et subincrassate areolatis, tenuiter denticulatis, breviter cuspidatis; ex Oware Africae relatum. — *Leskea ornithopodioides* Brid. II. p. 330. — Hypnum pennatum, ornithopodioides, pinnulis pellucidis. Dill. Musc. p. 270. t. 34. f. 9. A. B.

Patria. Terrae aequinoctiales Americanae et Africanae. Ex insula Jamaica primus retulit Swartz.

Flores masculi in caulis inferiore pagina aggregati turgide gemmacei parvi, fol. perig. parvis, late ovatis concavis, longissime acuminatis, cuspidatis, tenerius reticulatis, antherid. turgide ovalibus parvulis, paraph. brevibus paucis.

16. **H. spectabile** C. Müll.; *dioicum;* robustum; folia *maxima,* e basi ad medium dilatato-ovata, acuminata, *grosse remote serrata,* nervo in cuspidem *haud reflexam* longiusculam exeunte, *margine parum involutaceo,* igitur plus minus concava, e cellulis *sublaevissimis diaphanis pachydermibus basi multo laxioribus* areolata; stipulaeformia *magna,* praecedentibus minora, late cordato-lanceolata longe acuminata et cuspidata *grosse serrata;* perich. *latissime ovata integerrima,* nervo in cuspidem longam tenuem flexuosam exeunte, convolutacea; *laxissime*

elongate reticulata; theca in ped. *longissimo* robusto *elongata anguste cylindrica* cernua horizontalis, operc. longe rostrato; perist. congenerum robustum.

Racopilum spectabile Reinw. et Hsch. Nov. Act. Leop. XIV. II p. 721. t. 40. — *Hypnum Moritzii* Duby in Moritzi Pl. Zolling. p. 131.

Patria. Java: Reinwardt primus legit.

Ab *H. tomentoso* notis cursive impressis longe recedit; ab *H. tomentoso β. insigni*, ex areolatione diaphana sublaevissima simili, statura spectabili et omnibus partibus robustissimis primo visu distinguitur.

17. **H. arcuatum** C. Müll.; folia appresso-patula *cordato-lanceolata, basi infima haud angustiore, breviter apiculata, serrata symmetrica*, stipulaeformia minora, *e reliquis praecedentibus similia*, omnia pallide viridia; theca in ped. *in arcum magnum decurvato recte cylindrica* striata subulato-rostrata, perist. congenerum.

Pterygophyllum arcuatum Brid. II. p. 348. — *Hypnum arcuatum* Hdw. Sp. Musc. p. 245. t. 62.

Patria. Insulae Australes: Banks?

Ab *H. tomentoso* et *β. insigni* simillimis notis cursive impressis facile distinguitur.

18. **H. convolutaceum** C. Müll.; *dioicum; tenerius;* folia *maxime ad paginam inferiorem caulis spectantia,* amoene lutescentia, e basi *symmetrica late ovata, haud brevissime angustiore*, lanceolato-acuminata, *teneriora* et tenuius reticulata *scaberrima, convolutaceo-concava, margine undulato-flexuosa;* stipulaeformia *praecedentibus parum minora* e basi late cordato-ovatâ lanceolata longissime cuspidata; fructus tenerior.

Racopilum tomentosum Hmp. in Lehmann Pl. Preiss. II. p. 119!

Patria. Nova Hollandia: Preiss. Ex Isle de King Novae Hollandiae habuit Hb. Reg. Berol.

Ab *H. tomentoso* longe refugit.

Species obscurae.

1. **Hypnum Mougeotianum** A. Rich. (Fl. Nov. Zeel. p. 57 teste Hooker Companion to the bot. Magazin II. p.

336.); „foliis distichis sessilibus oblongis undulatis, longissime acuminatis setosisque stipulaceis alternis dimidio brevioribus, perichaetialibus basi coalitis lanceolatis apice in seta gracili longa sensim desinentibus, capsula oblonga arcuata subcernua, operculo longirostro."

Patria. Nova Seelandia: Dumont d'Urville 1827.

2. **Hypnum cuspidigerum** Schw. (in Voy. autour du Monde, par M. L. de Freycinet. 1826. Bot. p. 227.); repens, ramis vagis subcompressis; folia ovata concava, nervo cuspidata integerrima.

Hookeria (Rhacopilum) tomentosa var. *subintegrifolia* Walk. Arn. Disp. d. M. p. 58.

Patria. Insulae Sandwichenses: Gaudichaud.

Folia leptostomoidea et caulis radicularum longarum fasciculos exserens dicuntur. Propria species videtur.

Gen. II. **Cyathophorum** P. B.

Prodr. p. 52. — Brid. II. p. 721. — *Pterygophyllum* Brid. olim. — *Hookeria* Hook. — *Leskea* Schw. — *Anoectangium* Hdw.

Nomen graecae compositionis, a *κύαθος cyathus* et *φορέω fero*, vaginulae cui pedunculus inseritur formam designans.

Calyptra *mitraeformis.* Peristomium duplex generis *Hypopterygii*, interius ciliis singulis interjectis.

1. **C. bulbosum** C. Müll.; caulis repens plerumque tomentosus, stipites simplices elongatos jungermannioideo-foliosos basi tomento veluti bulbosos, atros triangulares emittens; folia viridia v. lutescentia asymmetrica, e basi brevissime angustiore latissime ovata obtuse acuminata, apice grosse argute serrata, immarginata, obscura, e cellulis laxissimis magnis pachydermibus utriculo primordiali robusto praeditis areolata, nervo brevi evanido latiusculo basi furcato; stipulaeformia praecedentibus simillima, sed multo minora rotundato-ovata acuminata symmetrica; perich. pauca angustissime lanceolata longe

cuspidata denticulata enervia; thecae utrinque secus foliorum stipulaeformium positae, in ped. perbrevibus rectis vaginulae cyathiformi insertis rectae ovales parvulae, operculis conico-acuminatis, calyptra conica tenera obtectis, dentibus ext. linea longitudinali valde exaratis.

C. pennatum Brid. II. p. 722. — *C. pteridioides* P. B. Prodr. p. 52. — *Pterygophyllum pennatum* Brid. Mant. Musc. p. 154. — *Hookeria pennata* Sm. Linn. Trans. IX. p. 277 et Hook. Musc. Exot. t. 163. — *Leskea pennata* Labillard. Nov. Holl. Pl. II. p. 106. t. 253. — *Anoectangium bulbosum* Hdw. Sp. Musc. p. 43. t. 6.

Patria. Ex insulis Australibus primus retulit Banks; in insula Van Diemen: Labillardiere et R. Brown; in insula Aucklandi formam minorem legit J. D. Hooker.

Planta elegantissima, foliis areolatione laxa *Pterygophyllis* similis, sed foliis tristichis ab *Hypopterygiaceis* non separanda, calyptra conica genus egregium sistens.

Genus incertum.

Gen. **Helicophyllum** Brid.

II. p. 771. — *Schistidium* ej. I. p. 121. — *Anictangium* Hook. Musc. Exot.

Nomen graecae compositionis, e verbis ἕλιξ *spira* et φύλλον ob folia in helicem convoluta ductum.

Calyptra —? Peristomium nullum.

Patria. America solstitialis.

1. **H. torquatum** Brid. (l. c.); dioicum; maxime tomentosum; caulis tenellus repens parce et breviter dichotomus; folia amoene viridia dense imbricata, siccitate apicibus maxime involutis, oblongo-ligulata obtusa, infima basi paucissime asymmetrica, tenuissime flavide marginata, integerrima, chlorophyllosa scaberrima dense et minute prosenchymatice areolata; stipulaeformia multo minora lanceolata, multo tenerius reticulata vix marginata, omnia evanidinervia; perichaetialia valde exserta multa pallidiora, perichaetium conicum calyptrae hirsutae veluti aemulans efficientia, perfecte lanceolata robusta laevia, e cellulis elongatis teneris parenchymaticis et prosenchy-

maticis areolata integerrima, immarginata, nervo crasso flavo excurrente praedita; theca in ramulo elongato inter ramulos plures incluso pseudoterminali immersa parva oblonga, operculo minuto cupulato breviter mammillato.

Schistidium torquatum Brid. I. p. 121. — *Anictangium torquatum* Hook. Musc. Exot. t. 41. et Schwägr. Suppl. II. I. p. 5. t. 103.

Patria. Brasilia, ad ripam fluminis Amazonum in umbrosis calidis provinciae Jaen de Bracomoros prope Tomependam: Humboldt et Bonpland primi legerunt. Serra de Santa Brida prov. Goyaz, Febr. 1840.: Gardner No. 5. In locis non indicatis leg. Sellow. In insula Portorico collegit Bertero formam minorem.

Rhacopilum forsan erit.

III. **Polystichophylla:**

Folia in series quatuor et ultra disposita.

Trib. XXIII. MNIADELPHACEAE.

Cellulae retis folii *parenchymaticae*, plerumque aequaliter hexagonae *mnioideae*, laevissimae pellucidae, utriculo primordiali carentes, infimae basis in caulem decurrentibus majoribus spongiose laxis, plerumque pulcherrime fuscis; nervus unicus tenuis.

Hookeriis plantae proximae pulcherrimae, structura folii tenella pulchella praeditae, caracteribus cursive impressis ut *Mnia* a *Bryis* distinctae.

Patria. Regiones maritimae v. humidae plerumque hemisphaerae meridionalis.

Gen. I. **Daltonia** Hook. et Tayl.

Musc. Brit. ed. I. p. 80. — Brid. II. p. 255. — *Hookeria* Hook. et al. — *Neckera* Engl. Bot. Sm.

Nomen in honores D. James Dalton muscorum Britannicorum acris indagatoris conditum.

Calyptra *mitraeformis campanulata*, basi eleganter fimbriata. Peristomium duplex *neckeroideum*;

externum: dentes sedecim angusti subulati humiditate reflexi, trabeculati; internum: *cilia totidem similia* cum dentibus alternantia *membrana basilari carentia.*

Genus egregium pulchellum.

1. D. splachnoides Hook. et Tayl. (Musc. Brit. ed. I. p. 90. t. 3 et 22.); *monoica;* pusilla tenella pulchella flavo-viridis pulvinata, parce et breviter ramosa; folia caulina dense conferta nitidula erecta, anguste lanceolata acuminata, ubique crassiuscule flavo-marginata, integerrima, nervo ante apicem evanido flavido, cellulis infimae basis fuscis magnis laxis, supra basin pellucidis parvis angustis, apice magis incrassatis ellipticis flavidis; perich. similia; theca in ped. brevi apice subscabro apophysate ovalis substrumosa minuta brunnea, exannulata, operculo conico longe subulato pallide ochraceo, dentibus externis angustissimis longe subulatis, e cellularum seriebus duabus compositis, humiditate reflexis, internis angustioribus rugulosis aequalibus, calyptra minutissima elegantissime fimbriata glabra.

Schwägr. III. II. 2. t. 295. — Brid. II. p. 255. — *Hookeria splachnoides* Hook. Engl. Fl. V. I. p. 74 et Fl. Hibern. II. p. 37. — *Neckera splachnoides* Engl. Bot. t. 2564, excl. syn. Schwägr. Sppl. I. II. p. 151. t. 82.

Patria. Hibernia, in montanis maritimis ad margines rivulorum ad terram et in Ericarum ramulis, Secawn Mountain pr. Dublin, ubi Taylor detexit, Tuck Mountain et Cromaglown pr. Killarney: W. Wilson.

Flos masc. in vicinia feminei minutissimus, fol. perig. subconvolutaceis immarginatis latioribus, antheridiis perpaucis minutis eparaphysatis. — In Brasilia (Serra de Piedade) a beato Gardner (Coll. No. 78. nobis haud vis.) collecta et ab Hook. et Wils. *D. splachnoides* credita species nova erit.

2. D. nervosa Hmp.; *D. splachnoidi* simillima, sed magis crispata, folia *distincte carinate* lanceolata, *lamina apice inaequali*, nervo flavido *longe excedente torte cus-*

pidata, cellulis supra basin pellucidis laxis *paucis et sensim multo minoribus apice rotundatis* pachydermibus pellucidis et flavidis; theca *ovato-cylindrica*, erecta apophysata, calyptra eleganter fimbriata *duplo longior*, peristomium *brevius*.

Hookeria nervosa Hook. et Wils. Lond. Journ. 1844. p. 549.

Patria. Insulae Aucklandi: J. D. Hooker.

Fructum non vidimus.

3. **D. angustifolia** Dz. et Molkb. (Musc. Archip. Ind. II. 1845. p. 31. t. 13.); *monoica; D. splachnoidi* simillima, sed *magis crispa*, folia *angustissima, tenuissime marginata*, e cellulis *ubique* pellucidis *tenerioribus* composita, *flaccidiora*, perich. caulinis latiora; theca in ped. ascendente superne scabro major, dentibus externis *latioribus distincte trabeculatis subrugulosis*, internis valde rugulosis aequalibus.

Patria. Borneo, ad ramos arborum et in terra cespitose crescens: Korthals.

Flos masc. et caetera *D. splachnoidis*.

4. **D. longipedunculata** C. Müll.; *monoica;* pusilla laxe foliosa flaccida; folia caulina crispatula, madefacta valde patula *longissima* anguste lanceolata in acumen *filiforme* longiusculum producta, profunde carinata, cellulis ubique pellucidis v. apice subobscuris, basi laxioribus, margine *valde revoluto, basi late* flavido *limbato*, nervo flavido longe infra apicem evanido; perich. latiora minora acuminata obsoletinervia vix marginata; omnia integerrima; theca in ped. *elongato laevi* purpureo haud curvato stricto *apice in collum angustum longiusculum subrugulosum incrassato* erecta obovalis *minuta, ore minori parum coarctato*.

Patria. Java, monte Sakoenbang; inter *Hypnum dealbatum* (*Hypnum Vriesii* Dz. et M. Hb. Lugd. Batav.) specimina duo imperfecta invenimus.

A *D. angustifolia* proxima vestigiis laudatis longe distincta. Peristomium, operculum et calyptram non vidimus.

5. **D. ovalis** Tayl. (Lond. Journ. of bot. 1846. p. 66.); *D. splachnoidi* similis, sed *major robustior, aureo-flavida*, rami *compressi*, folia oblongo-lanceolata apiculata *canaliculata substriata, margine reflexa*, nervo *tenuissimo* ante apicem evanido; theca in ped. scabro ovalis, *ore magis contracta, minute apophysata*; caetera *D. splachnoidis*. †.

Patria. Andes Quitenses, ad truncos arborum pr. Cayambe altitud. c. 14000′: W. Jameson legit 20. Oct. 1827.

6. **D. Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 283.); *monoica;* dense cespitosa, erecta subsimplex *longior, crassitudine magis aequali,* subcompressa, pallide flavido-viridis; folia arcte imbricata erecta, *late ovata* acuminata, medio uniplicata, margine limbato reflexo integerrimo, nervo evanescente, cellulis grossis; theca in ped. scabro erecta subaequalis ovata, operc. longirostro subinclinato, calyptra *apice scabra et basi dense laciniata;* perist. d. ext. lineari-lanceolati, interni cilia filiformia *pallida*. †.

Patria. Monte Pichincha Andium Quitensium, ad limitem glac. aeternae: W. Jameson 1847. Julio.

A *D. splachnoide* notis cursive impressis ex auctore differt. Perigonia minuta, foliis paucis, internis teneris obtusis.

7. **D. longifolia** Tayl. (Lond. Journ. of bot. 1848. p. 284.); *monoica;* erecta, laxe cespitosa, subramosa, pallide flavido-viridis, subcompressa, ramis apice latioribus; folia imbricata, erecto-patentia, flexuosa, lineari-lanceolata, acuminata, apice flaccidiora, canaliculata, margine limbato pellucido plano integerrimo, nervo evanescente, cellulis densis minutis; perich. interna acuminata tenera; theca in ped. scabro erecta oblongo-ovata subaequalis, operc. longirostro, calyptra basi dense laciniata. †.

Patria. Monte Pichincha: W. Jameson 1847. Februario.

Ex auctore foliorum longitudine et cellulis minutissimis distinctissima.

Gen. II. **Mniadelphus** C. Müll.

Bot. Zeit. 1847. p. 938 et Linn. XXI. 1848. p. 196. — *Distichophyllum* Dz. et Molkb. 1846, genus nilminus quam acute et sine notis distinguentibus veris conditum, cum speciebus alienis commixtum. — *Hookeria* eor. et al. — *Pterygophyllum* Brid. — *Hypnum* Hdw.

Nomen a *Mnium* (μνίον) dicto genere acrocarpico et ἀδελφός *frater*, ob reticulationem folii similem ductum.

Calyptra *mitraeformis campanulata*, basi eleganter fimbriata. Peristomium duplex; externum: dentes sedecim lanceolato-subulati, linea longitudinali lata pallidiore v. angustissima notati; internum: *membrana carinata, in dentes sedecim carinatos divisa, ciliis rudimentariis interpositis.*

Daltoniae maxime affine, sed peristomio et caule compresso latifolio certe distinctum genus, regiones tropicas, calidas et antarcticas praesertim maritimas insulares habitans. Plantae complanatae laxifoliae mnioideae, foliis plerumque spathulatis, quorum limbus in speciebus marginatis facile solubilis.

a. *Folia immarginata.*

1. M. microcarpus C. Müll.; *dioicus;* procerus subsimplex albide virescens, inferne nudiusculus, caule molli crassiusculo; folia caulina laxe imbricata viridia, *maculo magno albido e basi ad medium folii producto notata, e basi breviter spathulatâ suborbicularia immarginata* integerrima *obtusissima*, cellulis *infimae basis* et inde utrinque nervi tenuis viridis supra medium evanidi magnis laxis *pellucidis* illud maculum efficientibus, ad marginem et apicem versus multo minoribus pachydermibus diaphanis, maculum cingentibus; perich. minutissima ovato-acuminata ubique laxe areolata pellucida; theca in ped. subcurvato crassiusculo purpureo *erecta minute ovalis.*

Pterygophyllum microcarpum Brid. II. p. 242. — *Hypnum microcarpum* Hdw. Sp. Musc. p. 214. t. 59. — *H. microcranthum* P. B. Prodr. p. 66.

Patria. Insulae Australes: Banks.

2. M. quadrifarius C. Müll.; *dioicus;* robustissimus procerus *latissime complanatus aureo-nitens*, ramis obtusis elongatis ascendentibus; folia caulina octofaria laxissime imbricata, e basi subspathulata ligulato-rotundata, basi subasymmetrica, lata vel serierum anticarum et posticarum multo minora orbicularia, omnia immarginata, nervo *rubro crasso* citra medium evanido aliquanto apice bifurco, cellulis *ubique laxissimis* parenchymaticis; perich. minuta ovato-acuminata enervia; theca in ped. longiusculo crasso rigido apice arcuato *nutans magna, cylindraceo-oblonga, fusca, basi nigricans et tuberculis grossis aspera;* perist. d. ext. linea media maxime hiante adeo, ut lamina superior in crura duo remota apice tantum connata fusca dividatur, int. in membrana longa carinata pertusi, ciliolis solitariis rudimentariis. †.

Pterygophyllum quadrifarium Brid. II. p. 347. — *Hookeria quadrifaria* Hook. Musc. Exot. t. 119. — Schw. Suppl. II. II. 1. p. 32. t. 162.

Patria. In sinu Dusky-Bay Novae Seelandiae: Menzies 1791.

b. *Folia marginata.*

a. Folia rotundata plus minus mucronulata.

3. M. rotundifolius C. Müll.; *dioicus?* ramosus complanatus, ramis compressis; folia imbricata subdisticha *ovato-rotunda apiculata marginata, apice denticulata,* seminervia, majuscule hexagone reticulata; theca in ped. laevi elliptico-oblonga horizontalis, operculo rostrato. †.

Hookeria rotundifolia Hook. et Wils. Lond. Journ. of bot. 1844. p. 551.

Patria. Insel-Bay Novae Seelandiae: J. D. Hooker.

M. Dicksoni ex animadv. auct. proximus, foliis minoribus, margine majori denticulatis, a *M. crispulo* foliis rotundis et cellulis majoribus conformibus distinctus.

4. **M. Hornschuchii** C. Müll.; *dioicus? minutus subsimplex;* folia caulina spathulata mucronulata marginata integerrima, cellulis basi *laxissimis* sublinearibus vel subquadratis hyalinis, apicem versus sensim minoribus confertioribus *subcircularibus*, pellucidis, nervo obscuriore supra medium evanido; perich. interiora minora erecta oblonga *breviter acuminata;* theca in ped. brevi laevi erecto purpurascente suberecta oblonga angusta subapophysata, sicca basi et ore contracta, operc. conico-acuminulato apice curvato; perist. dentes ext. in acumen subulatum nodosum albescens producti, valde trabeculati albidi, int. illos aequantes. †.

Hookeria mnifolia Hsch. Linn. XV. p. 141.

Patria. Prom. b. spei, prope Koratra in sylva, altitud 1000′ in truncis putridis: Drège, 5. Oct. 1831.

Omnium congenerum minutissima. Calyptra ignota. Notis cursive impressis facile a *Mn. Montagneano* discernibilis.

5. **M. Montagneanus** C. Müll.; *dioicus?* procumbens *pusillus tener viridis* parce ramosus; folia laxe appressa, e basi spathulatâ *anguste oblongo-ovata brevissime mucronata*, limbo *tenuissimo pallido integerrimo*, nervo ante apicem evanido pallido, cellulis *parvis valde pachydermibus*, basi majoribus; perich. multo minora ubique laxe reticulata obsolete marginata; theca in ped. *glabro* ascendente *crassiusculo breviusculo* suberecta oblonga subapophysata, operculo conico acuminulato apice curvato.

Hookeria mnifolia Mont. Crypt. Nilgheriens. No. 21. in Ann. d. sc. nat. 1842.

Patria. Montes Neelgherienses ad radices fructicum: Perrottet.

Exiguitate et colore viridi primo adspectu a ceteris congeneribus discernibilis. Fructum non vidimus.

6. **M. flaccidus** Hmp. (in litt.); *dioicus? elongatus erectus debilis angustus gracilis* compressus, ramis paucis *elongatis flaccidis;* folia laxe conferta, *late ovate oblonga, apice ligulato-obtusa*, interdum brevissime mu-

cronata, *cymbiformi-concava, viridia, fragilissima,* nervo *elongato* viridi tenuissimo evanido, limbo ubique tenui flavido integerrimo, cellulis ubique pellucidis laxis basi majoribus *valde irregulariter* hexagonis, infima basi fuscis; theca in ped. *elongato* laevi erecta obovato-oblonga, operculo rostrato, calyptra glabra, basi fimbriata.

Hookeria flaccida Hook. et Wils. Lond. Journ. of bot. 1844. p. 549.

Patria. Insula Eremitae ad Cap. Horn: J. D. Hooker.

Fructum non vidimus. Species caracteribus explicatis ab omnibus congeneribus primo visu distinguenda memorabilis.

7. **M. contortifolius** C. Müll.; *dioicus?* repens ramulosus; folia spathulata v. *oblongo-lingulata obtusissima* undique imbricata, nervo ante apicem evanido, marginata, *sicca et madefacta contorta laete viridia.* †.

Hookeria contortifolia Mont. in Ann. d. sc. nat. 1843. XIX. p. 240.

Patria. Insulae Sandwicenses: Gaudichaud.

Ex animadv. auctoris *M. Montagneano* proximus.

8. **M. pulchellus** Hmp. (in litt.); *dioicus;* tenellus pulchellus *sulphureus elatiusculus compacte cespitosus* fragilis; folia caulina laxe erecto-appressa, e basi breviter spathulatâ *ovato-rotundata brevissime mucronata,* nervo tenuissimo *pallido* ultra medium producto, limbo ubique tenui *pallide sulphureo* integro circumducta, cellulis ubique *teneris pellucidis* minutiuscule aequaliter hexagonis, basi parum laxioribus et infima basi paulisper fuscis; perich. minora tenuiora, intima *ligulato-obtusata;* theca in ped. *longiuscule exserto distincte conspicuo* glabro minute cylindraceo-obconica sublongicolla, operc. conico rostrato, calyptra basi *densissime breviter pallide* fimbriata, glabra; perist. minutum *M. aurati.*

Hookeria pulchella Hook. et Wils. Lond. Journ. of bot. 1844. p. 548.

Patria. Insulae Aucklandi: J. D. Hooker.

A *Mn. aurato* proximo caracteribus cursive impressis facile distinguendus, pulcherrimus.

9. **M. spathulatus** C. Müll.; *dioicus;* caulis ascendens parce dichotomus laxifolius nigrescens fragilis; folia octofaria erecta, e basi longe anguste spathulatâ *ovato-rotundata, apice brevissime mucronata,* ubique *tenuissime flavide* marginata integerrima, margine parum undulata, *iricolora,* nervo flexuoso ante apicem evanido, cellulis infra basin magnis fuscis, inde usque fere ad medium folii pellucidis longis amplis, *ceteris multo minoribus pellucide viridibus;* perich. parva lanceolata immarginata, ubique fere laxe areolata; theca in ped. brevi flexuoso *valde hispido* purpureo *inclinata v. pendula* minute ovato-subglobosa scabriuscula, operculo conico subulato sublongiori, calyptra *longe* fimbriata ciliate *hispida;* perist. generis, interni dentes carinati perforati.

Distichophyllum spathulatum Dz. et Molkb. Musc. Archip. Ind. p. 103. t. 34 et 35. A. — *Hookeria spathulata* eor. Ann. d. sc. nat. 1844. p. 305. — *Hook. seminervis* Mont. Ann. d. sc. nat. 1845. p. 93.

Patria. Java, in monte Salak prope Papandajang: Kühl, van Hasselt, Zippelius; prope Buitenzorg: Hb. Miquel. Sumatra, in monte Singalang: Korthals.

Flores masculi in planta humiliore, fol. perig. enervibus, caulinis laxius areolatis, ext. ovato-oblongis undulatis, int. brevioribus late ovatis obtusis valde concavis; antheridiis copiosis paraphysatis. *Mn. cuspidato* proximus.

β. Folia acuminato-apiculata.

10. **M. paradoxus** C. Müll.; *dioicus?* erectus elongatus pluries et breviter dichotomus flavide viridis flaccidus latiuscule complanatus; folia caulina laxe conferta, *elongate anguste oblongo-lanceolata, breviter mucronata,* paulisper undulata, ubique tenuiter albide limbata, *apice parce obsolete denticulata,* nervo elongato flexuoso albido ante apicem evanido, cellulis infimae basis magnis fuscis, basis elongate hexagonis, superioribus sensim minoribus

aequaliter hexagonis pachydermibus, omnibus pellucidis; calyptra fimbriato-ciliata.

Hookeria (*Pterygophyllum*) *paradoxa* Mont. Voy. d. l. Bonite. Bot. p. 296.

Patria. Sandwich insulae: Gaudichaud.

Fructum non vidimus. Caracteribus cursive impressis primo visu distinguendus.

11. M. crispulus C. Müll.; *dioicus? humilis* ramosus complanatus, ramis compressis; folia laxe imbricata subdisticha patentia *subobliqua* apiculata marginata subundulata, integerrima seminervia *opaca*, *inferne pellucida*, *siccitate crispata;* perich. ovato-acuminata; theca in ped. laevi ovata horizontalis, operculo rostrato, calyptra *subpilosa* basi fimbriata. †.

Hookeria crispula Hook. et Wils. Lond. Journ. of bot. 1844. p. 550.

Patria. Insel-Bay Novae Seelandiae: J. D. Hooker.

M. Dicksoni ex animadv. auctorum affinis, areolis autem minutioribus.

12. M. Dicksoni Hmp. (in litt.); *dioicus; M. pulchello* similis, sed angustior tenerior magis sulphureo-viridis; folia *parva jungermannioidea*, e basi brevissime subspathulata rotundato-ovata, *in acumen longiusculum tenuissimum* producta, ubique pallide flavide limbata, *margine toto fere tenuiter revoluta*, *cochleariformi-concava*, nervo *maxime tenui brevissimo*, *raro ad medium producto*, cellulis ubique pellucidis teneris laxis majoribus, basi parum laxioribus et infima basi paulisper fuscis; perich. minora magis acuminata tenerrima irregulariter plicata obsolete limbata; theca et peristomium *M. pulchelli*, calyptra glabra, basi ciliis fugacissimis tenerrimis *v. laciniis latiusculis.*

Hookeria Dicksoni Hook. Lond. Journ. of bot. 1844. p. 549.

Patria. Insulae Eremitae et Falklandi ad Cap. Horn: J. D. Hooker.

Flos masc. minutus, fol. perig. caulinis minoribus ovato-lanceolatis, antheridiis intense fuscis paucis.

13. **M. Freycineti** C. Müll.; *dioicus?* proceras subsimplex laxifolius; folia *lata, oblongo-acuminata*, undulato-flexuosa, *ubique latiuscule flavide marginata* integerrima, nervo flexuoso subtenui infra apicem evanido, cellulis infimae basis *magnis* fuscis, *inde usque fere ad medium folii magnis laxis pellucide viridibus, superne multo minoribus pellucidis.*

Hookeria Freycineti Mont. Voy. Bonit. Bot. I. p. 296. — *Hypnum Freycineti* Schwägr. Suppl. III. II. t. 279. et C. Müll. Synops. Musc. Frond. I. p. 168 inter *Mnia* dubia, ubi species deleatur. — *Mnium giganteum* Schw. in Freycinet. Itin. per orbem I. p. 227.

Patria. Insulae Sandwich: Gaudichaud.

M. paradoxo proximus, notis autem cursive impressis longe distans.

14. **M. cuspidatus** C. Müll.; *dioicus;* ascendens pusillus parce ramosus dense foliosus *pallide viridis;* folia laxe appressa erecta, e basi longe spathulata angustatâ *ovata cuspidate acuminata, tenuiter pallide limbata*, margine undulata, nervo ultra medium producto pallido flexuoso, cellulis infimae basis fuscis magnis, *ceteris ubique laxis pellucidis,* inferioribus elongatis amplis; perich. multo minora ovato-lanceolata acuminata, concava, obsolete limbata, teneriora et laxius reticulata, intimum subconvolutaceum; theca in ped. brevi ascendente, *apice erecto-curvato, scabriusculo* et in collum incrassato, minutiuscule obconica fusca subrugulosa, operc. conico subulato recto, calyptra parva *breviter* fimbriata *glabra;* perist. *M. spathulati,* interni dentes minus perforati magis punctati.

Distichophyllum cuspidatum Dz. et Molkb. Musc. Archip. Ind. p. 101. t. 33. — *Hookeria cuspidata* eor. Ann. d. sc. nat. 1844. p. 305.

Patria. Java, prope Limbang: Zippelius, Korthals; Sumatra, in arborum cortice juxta flumen Batang-Bessie: Korthals.

A *Mn. spathulato* proximo notis explicatis facillime distinguendus.

15. **M. auratus** C. Müll.; *dioicus; pusillus tenellus auratus* late gregarius v. cespitosus, parce dichotomus,

erectus, subrosulatus; folia caulina laxe appressa, e basi breviter spathulata oblongo-ovata cuspidate acuminata, undulate flexuosa, *pulcherrime aurato-flavida*, ubique *crassiuscule flavide limbata* integerrima, nervo parum carinato flexuoso ante apicem evanido, cellulis *ubique fere parvis pachydermibus flavidis subrotundis*, basis infimae fuscis laxis, basis ipsius brevissimae longioribus; perich. *paucissima minutissima* lanceolato-acuminata obsolete marginata; theca in ped. brevi erecte curvato glabro superne in collum breve incrassato *minutissime ovalis*, aperta urceolata, subrugulosa intense fusca, operculo conico subulato recto, calyptra eleganter *aurate* fimbriata glabra; perist. *minutissimum:* externi dentes angustissime subulati *maxime trabeculati*, linea longitudinali angustissima exarati, interni dentes in membrana brevi carinate lanceolati haud perforati rugulosi.

Patria. Insula Antillarum Trinidad, ubi in monte Tocuche 4. Dec. 1847. legit Crüger.

Mniadelphi obscuriores.

1. **Hypnum ? Magellanicum** P. B. (Prodr. p. 66.); ramosum erectum; folia obovata mnioidea pellucida acuminata; calyptra basi ciliata. †.

Brid. II. p. 541.

Patria. Fretum Magellanicum: Hb. Jussieuan.

Mniadelphus verus; an autem propria species, e diagnosi pauperrima haud elucet.

2. **Leskea apophysata** Hsch. (Fl. Bras. I. p. 74.); monoica prostrata gracilis, ramis compressis decumbentibus tenuibus subpinnatim ramulosis, ramulis brevibus patentibus v. erectiusculis; folia caulina subdisticha remota patentia ovato-lanceolata serrata, pallide viridia, nervo carinato concolori supra medium evanido, cellulis parallelogrammis angustis; perich. longe et longissime acuminata, intima minuta lanceolato-subulata subhyalina, integerrima enervia; theca in ped. gracili sursum incrassato laevi parum flexuoso parva ovata apophysata cernua,

operculo longiori conico subulato; perist. dentes ext. conniventes, sicci erecti ferruginei apice pallidiores trabeculati, interni aequales carinati articulati, e basi usque fere ad apicem fissi. †.

Patria. Brasilia, Serra dos Orgaôs, ad truncos arborum sylvestrium: Beyrich, Febr. legit.

Calyptra deest. Ex auctore ad *Hookerias* accedens.

3. **Hookeria punctata** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 550.); *dioicus?* pinnatim ramosus, ramis compressis; folia subdisticha imbricata patentia *obovata subapiculata serrulata minute igitur punctate areolata,* seminervia; perich. *squarrosa;* theca in ped. laevi *nutans* elliptica, operculo rostrato, calyptra glabra albida carnosa. †.

β. oblongifolia; rami minus compressi, folia erecto-patentia oblongo-obovata, siccitate undulata, eroso-denticulata, nervo validiore ultra medium producto. †.

Patria. Insel-Bay Novae Seelandiae: J. D. Hooker.

Var. *β.* fortasse species propria, caule subdendroideo, ramis distinctius pinnatis arctioribus, foliis longioribus densius imbricatis undulatis, colore intensius viridi. Calyptra haud fimbriata? Videtur.

Trib. XXIV. HYPNOIDEAE.

Cellulae folii *prosenchymaticae*; densae v. laxae, laeves v. papillosae. Cellulae alares folii baseos diversae: 1. quadratae planiusculae v. ventricose impressae, pellucidae v. flavidae seu fuscescentes; 2. paucae vesiculaeformes, ad infimam basin positae amoene flavidae v. hyalinae; 3. obsoletae vix ullae, ad infimam basin positae fugaces hyalinae vesiculaeformes; 4. in foliis papillosis quadratae plures, sed plerumque vix conspicuae. Folia 0—5 nervia. Nervi bini diversi: 1. e basi jam divergentes discreti, in dorso

folii valide callosi et spinae forma e folii lamina dorsali prominentes; 2. deplanati, haud calloso-prominentes; 3. in foliis, cellulis alaribus vesiculaeformibus praeditis, obsoleti, striis binis brevissimis, plerumque vix conspicuis, designati.

Patria. Per orbem totum terrarum.

Tribus omnium ditissima, e typis maxime variis composita, difficillima.

Subtribus I. NECKERACEAE.

Peristomium internum ciliis interpositis nullis.

Peristomium externum et internum saepius desunt.

Gen. I. **Rhegmatodon** Brid.

II. p. 204. — *Macrohymenium* C. Müll. — *Leskea* al.

Nomen, a graeca voce ῥῆγμα *fissura* et ὀδούς, dentium internorum rimam longitudinalem (in *R. rufo* autem *deficientem*!) ex auctore designaturum.

Calyptra *dimidiata*. Peristomium duplex. Externi dentes *brevissimi* trabeculati hypnoidei; interni *in membrana brevi vix carinata tessellata veluti perforata rufescente longissimi externos longe superantes, vix carinati*, linea longitudinali hiante v. integra exarati, remote articulati.

Patria. Terrae maris Indici.

a. *Folia uninervia.*

1. **R. orthostegius** Mont. (Ann. d. sc. nat. 1842. p. 248.); *monoicus;* caulis repens vage ramosus, ramis brevibus erectis incurviusculis tereti-filiformibus viridibus, dein rufescentibus, rigidis, parce divisis; folia caulina dense appressa ovato-acuminata, profunde concava, margine latissime revoluta, integerrima, nervo ultramedio carinato viridi, cellulis incrassate grosse ellipticis ad mar-

ginem rhomboidalibus obscure viridibus, utriculo primordiali tenui praeditis; perich. late lanceolato-acuminata longiora vaginantia laxe pellucide reticulata subnervosa; theca in ped. laevi rufescente brevi parum inclinata v. erecta inaequalis oblonga pallida, operc. turgide conico aurantiaco; perist. d. ext. brevissime lanceolati dense et interne maxime costato-trabeculati, igitur veluti ex articulis latiusculis transversis moniliformibus compositi, int. maxime alti late lanceolati, remote articulati, medio hiantes, lutei rugulosi, omnes longe infra orificium oriundi.

Patria. Ad corticem arborum in dumetosis Indiae orientalis, circa Kaitie montium Neelgheriensium: Perrottet.

An a sequente revera distinctus?

2. R. declinatus Brid. (II. p. 204; 1827.); *monoicus; R. orthostegii* simillimus, sed differre videtur: foliis concavis margine haud revolutis, perich. caulinis conformibus, pedunculo apicem versus scabro. †.

Schwägr. Suppl. III. I. 2. t. 204. — *Pterogonium declinatum* Hook. Trans. of Linn. Soc. IX. t. 26. f. 3.

Patria. Nepal, in arborum cortice: Buchanan.

b. *Folia binervia.*

3. R. rufus C. Müll.; monoicus; repens dense caespitosus, ramis subaequalibus ascendentibus crassiusculis subrigidis e viridi rufescentibus nitidulis subflexuosis apice paulisper secundis simpliciusculis parum compressis pinnatus; folia caulina dense conferta, humore erecto-patentia, paullo homomalla, e basi angustiore lanceolato-ovata, obliquiuscule acuminata, profunde concava, subplicata, margine integerrimo inferne reflexo, cellulis grosse ellipticis firmis, alaribus superioribus distinctis paucis parvis, inferioribus majoribus, omnibus flavidis, nervis binis brevissimis obsoletis flavidis; perich. longiora minus cava, basi laxe reticulata; theca in ped. breviusculo rigido crassiusculo laevi purpureo flexuoso erecta v. parum inclinata, e basi substrumosa oblonga, ore latiore, exannulata, fusca,

operculo longe rostrato aequilongo; perist. d. ext. dimidia parte lanceolati dense trabeculati et linea media exarati, subito in cuspidem aequilongam tenuissimam articulatam pallidiorem in sicco inflexam producti, int. externos longe superantes, basi angusti, medio dilatati, apice attenuati, lutei laeves, haud hiantes.

Macrohymenium rufum C. Müll. Bot. Zeit. 1847. p. 825. — *Leskea acidodon* Mont. Ann. d. sc. nat. 1845. p. 96. t. 5. f. 4? — *L. mitrata* Dz. et Molkb. l. c. 1844. p. 311. — ? *L. rufa* Hsch. Nov. Act. ac. Caes. Leop. XIV. Suppl. II. p. 716.

Patria. Java: Blume et Reinwardt; Sumatra: Hb. Lugd. Batavorum; ins. Bourbonis, ad cort. arborum: Hb. Montagn.

Flos masc. in vicinia feminei minutus. Ex insula Java pulcherrimum habemus.

Gen. II. **Fabronia** Raddi.

Act. Flor. Atti dell Acad. de Scienz. di Siena. Tom. IX. p. 230. — *Campylodontium* Schw. et Dz. et Molkb. — *Anacamptodon* Brid.

In honores *Fabroni* monetae excudendae Praefecti Florentini nomen conditum.

Calyptra *dimidiata.* Peristomium simplex vel duplex. Externi dentes sedecim lanceolati infra orificium oriundi *membranacei planissimi coriacei fusciduli* geminati, linea media perpendiculari et articulis plus minus conspicuis notati rugulosi. Interni cilia sedecim cum dentibus alternantia tenuissima breviora concoloria articulata, in unica specie adhuc observata.

Plantae graciles pulchellae tenerae, colore plerumque velutino-viridi vel sericeo, v. robustiores.

Sectio I. **Eufabronia.** Plantae tenerae v. tenerrimae haploperistomatae, thecis minutis leptodermibus.

a. *Folia ciliata.*

1. **F. pusilla** Raddi (Act. Florent. l. c.); *monoica;* pulvinuli plus minus densi pusilli molles sericeo-virides;

caulis tenerrimus repens fragilis parce ramosus, ramis erectis curvatis teneris plumose foliosis; folia caulina laxe conferta, *anguste lanceolata*, in acumen longum filiforme flexuosum producta, parum carinata, planiuscula, margine *inferne brevius superne longe inaequaliter stricte sublobate ciliata* nervo tenui viridi infra medium evanido, cellulis mollibus laxiusculis brevibus, utriculo primordiali tenerrimo vel chlorophyllo repletis, viridibus, alaribus planis multis quadratis parvulis granulosis; perich. serrata, vix ciliata, vaginantia oblonga, laxius reticulata; theca in ped. brevi tenerrimo flavido laevi recta minute urceolato-ovalis truncata macrostoma leptodermis fuscidula, operc. hemisphaerico obtuso brevi; perist. dentes sedecim anguste lanceolati introrsum flexi geminati plani fusciduli leviter trabeculati fissiles rugulosi.

Brid. II. p. 170. — Schw. Suppl. I. II. p. 337. t. 99. — *Grimmia inconspicua* Bertol. Amoen. p. 53.

Patria. Ex Italia omni mediterranea per Helvetiam Gallicam, ubi prope Genevam legit Schimper, et per Galliam mediterraneam usque ad Hispaniam, praesertim pyrenaicam. Prope Toscanam primus legit Raddi. Truncos arborum praesertim *Oleae Europaeae* habitat. — *Aestate.*

2. **F. macroblepharis** Schw. (Suppl. III. I. 2. tab. 247.); *monoica; F. pusillae* simillima; folia caulina *ovato-acuminata, in pilum breviusculum producta*, parum concava, margine ciliis, *folii dimidiam latitudinem fere superantibus filiformibus, continuis, non lobatis, triplo longioribus patentibus* fimbriata, pellucida, pallide viridia, enervia, cellulis elongatis laxiusculis; perich. ovato-acuminata; theca parum longius flavide pedunculata, minute ovata, *basi in exiguam apophysin attenuata*, viridi-badia, dein fusca, operc. *conico oblique subulato.* †.

Patria. Brasilia: Pohl ad ligna putrida in locis non designatis legit.

A *F. pusilla* caracteribus explicatis longissime recedens et species pulchella.

3. **F. octoblepharis** Schw. (Suppl. I. II. p. 338. t. 99.); *monoica; F. pusillae* simillima, sed differt: statura plerumque majore, foliis *lato-ovatis, margine ubique ciliis aequalibus brevibus simplicibus subciliato-serratis,* perist. dentibus brevioribus et latioribus.

F. major. De Not. Syllab. Musc. p. 85! — *F. ciliaris* Brid. II. p. 171. — *Hypnum ciliare* Brid. Sp. Musc. II. p. 155. — *Pterigonium octoblepharis* Schleich. Crypt. Helv. Exs.

Patria. In Helvetiae montosae rupestribus primus legit Roger, dein Thomas et Schleicher. In Italia ad saxa prope Condave in agro Pedemontano: Ferreratti, ad muros agrorum in valle Vegezzo provinciae Novariensis, supra Masera: De Notaris; Valtellina prope Clavennam: Garovaglio.

4. **F. Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 197.); *monoica;* caulis abbreviatus laxe cespitosus ramosus gracillimus pallide viridis humilis; folia caulina patentia subsecunda, late lanceolata acuminata, acumine elongato discolori integerrimo, ciliata, basi margine cellulis amplis, superne linearibus, mediotenus uninervia; theca in ped. 4-lineari in apophysin obconicam incrassato subinclinata oblongo-turbinata; perist. d. lanceolati obtusi. †.

Patria. Ad arbores m. Pichincha Andium Quitensium, *Neckerae gracillimae* societate: W. Jameson, Dec. 1846.

F. octoblepharis ex auctore proxima dicitur.

5. **F. Persooni** Schw. (Suppl. I. II. p. 339. t. 99.); *monoica;* statura *F. pusillae, colore albide sericeo;* rami tenuiores; folia *angustissima lanceolato-acuminata stricta, haud piliformia,* margine *ubique* ciliata, *ciliis simplicibus tenuissimis inferne longioribus curvatis, apicem versus sensim brevioribus, summo apice denticuliformibus, enervia,* cellulis *elongatis angustissimis densis subconflatis vix conspicuis flavidis, alaribus obsoletis;* theca in ped. *longiusculo rubro* erecta minute ovata, subapophysata.

F. jungermannioides Brid. II. p. 169. — *Pterygophyllum jungermannioides* Brid. mst., haud ante Schwägrichen editum! — *Hypnum coronopifolium* P. B. in Hb. Bridel.

Patria. Insulae Bourbonis et Franciae: Bory St. Vincent detexit.

Species memorabilis distinctissima.

6. **F. Hampeana** Sonder (in Hamp. Ic. Musc. t. 13.); *monoica; F. pusillae* simillima, sed *glauco-albida*, robustior, mollissima, ramis *subclavatis, veluti tomentosa v. lanuginosa;* folia caulina *late lanceolata, in acumen simplex capillare producta*, margine ciliis *longis simplicibus capillaribus valde flexuosis fimbriata*, nervo latiore subobsoleto infra medium evanido viridi, cellulis *elongatis laxiusculis teneris pellucidis*, alaribus multis planis quadratis laxis intus granulosis; perich. tenuiora subvaginantia latiora, magis ovata, brevius acuminata, margine dentata; theca longius pedunculata, operculo et peristomio *F. pusillae.*

F. tomentosa Hook. et Wils. Ic. Pl. Rar. Hook. t. 739. C. — *F. incana* Tayl. Lond. Journ. of bot. 1846. p. 58.

Patria. Nova Hollandia, in truncis *Macrozamiae Preissii* Lehm. prope oppidum Perth: Preiss, 29. Jun. 1840, societate *Calymperis latifolii* Hmp. Ad Swan River legit J. Drummond.

b. *Folia dentata.*

7. **F. Gardneriana** C. Müll.; *monoica; F. pusillae* simillima; folia caulina ovato-lanceolata, *in acumen breve* capillare producta, carinata, margine *supra basin minute denticulata, hic illic superne dente intermixto-majore interdum praedito*, nervo ultra medium evanido, cellulis laxiusculis inanibus pellucidis mollibus, alaribus laxe quadratis chlorophyllosis vel pellucidis; perich. vaginantia, intima latiora *apice sinuato-emarginata* nervosa laxe reticulata; theca in ped. brevi flavido erecta minute ovalis, operculo et peristomio *F. pusillae.*

F. macroblepharis C. Müll. Bot. Zeit. 1845. p. 107. — *F. polycarpa* Wils. in Musc. Gardner.

Patria. Brasilia: Gardner in monte Corcovado, ad Pernambuco et Bahia, ubi Salzmann prius legit.

A *F. octoblephari* notis cursive impressis longe recedit.

8. **F. nivalis** Mont. (Ann. d. sc. nat. IX. 1838. p. 57.); *dioica;* statura *F. octoblephareos;* folia caulina brevius acuminata, margine *parce irregulariter remote et breviter acute dentato,* cellulis pallidis pellucidis, utriculo primordiali tenero repletis; theca angustior ovato-oblonga v. pyriformis, longius pedunculata, operculo convexo *rostrato, rostro tenui incurvo.*

C. icone in D'Orbigny Voyage dans l'Ameriq. merid. p. 107. t. 3. f. 3.

Patria. In summis jugis Andium prope Cochabamba prov. Ayopayae (Boliviae) ad nives aeternas, supra terram, alt. 2200′ hexapodum: D'Orbigny.

Notis cursive impressis a *F. octoblephari* certe refugit. A *F. secunda* foliis late ovatis aliter dentatis differt.

9. **F. pilifera** Hsch. (Linnaea XV. p. 136.); *monoica;* caulis repens vage ramosus, ramis brevibus ascendentibus; folia caulina arcte imbricata subsecunda, laxa, *ovato-acuminata,* in pilum hyalinum dimidio breviorem quam folium excurrentia, concava, *ultra medium uno alterove denticulo notata,* pellucida amoene viridia, nervo lato laxo concolore supra medium evanido, cellulis laxis oblongis, alaribus laxe quadratis; perich. vaginantia longissime acuminata laxius reticulata, *ciliato-dentata* enervia, subhyalina; theca in ped. bilineari flavido erecta obovata, basi contracta *apophysata* sicca ore dilatato cyathiformis brunnea.

Patria. Prom. bonae spei, inter Schiloh et Zwartkey, Windvoogelberg in trunco Encephalarti Fridr. Guilielmi, alt. 5000′, 22. Nov. 1832.: Drège. E locis non designatis prom. b. spei sub nom. *F. polycarpae* communic. olim Schwägrichen.

Notis cursive impressis a *F. secunda* longe distat.

10. **F. Abyssinica** C. Müll.; *monoica; F. piliferae* simillima, sed folia *latius ovato-acuminata, acumine brevi,*

margine *minus dentata, densius reticulata;* perich. *minus dentata breviora;* operculo cupulato, oblique rostellato.

F. macroblepharis Br. et Sch. in Musc. Abyss. No. 477, ad rupes prope Demerki a W. Schimper lecta. — *F. octoblepharis* Hmp. in litt. Operc. oblique rostellato.

F. macroblepharis Br. et Sch. l. c. No. 466. — *F. Bruchiana* Hmp. in litt. Operc. cupulato oblique mammillato. Locus natalis nobis ignotus.

F. polycarpa Br. et Sch. l. c. No. 443. — *F. Schimperiana* Hmp. in litt. Operc. conico obliquo acutiusculo. Locus natalis nobis ignotus.

F. curvirostris Hmp. in litt. Inter *Bryum leptophyllum* Br. et Sch. in prov. Schoata lectum, sub No. 451 editum. Operc. acute curvirostro.

Patria. Abyssinia, ad rupes prope Demerki, 14. Aug. 1838. et in prov. Schoata 15. Juli 1838.: W. Schimper.

11. **F. secunda** Mont. (Ann. d. sc. nat. 1842. p. 251.); *monoica;* pulvinuli pusilli sordide virides; caulis tenerrimus repens, ramis tenerrimis capillaribus subsecundifoliis; folia caulina erecto-conferta, madore patentia, *anguste lanceolata, longe substricte piliformi-acuminata, perfecte carinata,* margine *minute denticulato,* nervo infra medium evanido obsoleto, cellulis *F. pusillae;* perich. caulinis minora, magis vaginantia; theca *F. pusillae,* operculo *planiusculo mammillato.*

Patria. Montes Neelgherienses, in sylvis humidis circa Ootacamund truncicola: Perrottet.

12. **F. curvirostra** Doz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 304.); *monoica; F. pusillae* simillima, tenerrima, sordide viridis; folia caulina parvula, ovato-acuminata, acumine breviusculo, margine *superne aequaliter minutissime vel vix denticulata,* nervo et cellulis *F. polycarpae;* perich. similia teneriora; theca breviter flavide pedunculata erecta minute ovalis *subapophysata,* operc. conico *obliquo rostellato;* perist. dentes *abbreviati, fissura media carentes,* obsolete trabeculati, gyrato-rugulosi fusciduli.

Cum icone in Musc. Archip. Ind. t. 21.

Patria. Java, ad basin arborum montis Gédé, in fissuris corticis: Zippelius; in monte Tjikoerai: Korthals.

A *F. secunda* caracteribus laudatis differt.

13. **F. Australis** Hook. (Musc. Exot. t. 160.); *monoica;* habitus et folia *F. curvirostrae*, sed folia *latiora*, theca *exapophysata, costis pellucidis alaeformibus, basin contractam etiam tegentibus luteis praedita, operculo convexo mammillato et peristomii dentibus lanceolatis fissura longidutinali instructis.* †.

Brid. II. p. 171. — Schwägr. Suppl. III. I. 2. t. 247.

Patria. Ad sinum King George dictum Novae Hollandiae: Menzies 1791. legit.

c. *Folia integra.*

14. **F. polycarpa** Hook. (Musc. Exot. t. 3.); *monoica; F. pusillae* simillima, *tenerrima, pallide viridis;* folia caulina ovato-acuminata, *parvula, acumine brevi,* integerrima, subcarinata, nervo *tenui subobsoleto,* cellulis brevibus laxiusculis viridibus, plus minus pellucidis et utriculo primordiali tenerrimo praeditis, alaribus quadratis, intus granulosis; perich. similia; theca, operculum et perist. *F. pusillae.*

Brid. II. p. 172. — Schwägr. Suppl. III. I. 2. t. 247.

Patria. In umbrosis montis Quindiu Novo-Granadae, juxta la Quebrada de Toche in alt. 6300 pedum, ad radices *Quercus Granatensis:* Humboldt et Bonpland. Venezuela, in montibus nivosis prov. Meridae: Moritz.

Folia caulina et perich. in speciminibus Meridensibus interdum hic illic minute denticulata.

15. **F. Gueinzii** Hmp. (in litt.); *dioica; robusta; cespites lati prostrati duriusculi nitidissime virides;* caulis longe repens filiformis flexuosus vage ramosus, ramis subpinnatim dispositis brevibus amoene viridibus *apice flavidulis,* folia caulina erecto-conferta, madore patentia, late lanceolata, *in acumen elongatum capillare* summo apice tantum simplex producta, integerrima subcarinata,

nervo *supra medium evanido viridissimo, basi lato*, cellulis amoene viridibus sublongis teneris mollibus chlorophyllosis dein pellucidis, alaribus permultis laxe quadratis chlorophyllosis, dein pellucidis; perich. magis vaginantia, tenuiora et laxius reticulata pellucida brevius acuminata, apice interdum parce dentata; theca in ped. breviusculo rufo tenero erecta ovalis, ore madore minori.

Patria. Prom. bonae spei: Gueinzius, pharmacopola Halensis, legit.

Operculum et peristom. non vidimus. Flores masc. numerosi turgide gemmacei.

Sectio II. **Anacamptodon.** Plantae robustae diploperistomatae, thecis robustis carnosulis.

A *Fabroniae* genere ut *Orthotricha* haploperistomata a congeneribus suis caeteris recedens, methodo naturali nunquam genus discernendum.

16. F. splachnoides C. Müll.; monoica; laxe pulvinata, velutino-viridis, robusta; caulis longe repens homomallifolius flexuosus, ramis brevibus flaccidis patentifoliis; folia caulina laxe imbricata, late ovato-lanceolata latiuscule acuminata, integerrima, carinata, margine erecto v. parum involutaceo, nervo crasso viridi supra medium evanido, cellulis ampliusculis pellucidis brevibus inanibus v. utriculo primordiali instructis, apice robustioribus viridiusculis, basi tenerioribus, alaribus saepe obsoletis quadratis paucissimis; perich. teneriora, magis vaginantia; theca in ped. ascendente crasso flavido stricto erecta turgide ovali-oblonga carnosula pallida, dein fusca, operc. conico subturgide rectiuscule acuminato; perist. d. ext. sedecim latiuscule longe lanceolati acuti geminati, linea longitudinali laevi exarati et laeviter articulati, fusciduli rugulosi introrsum inflexi, cilia sedecim tenuissima breviora fusca dense articulata.

Anacamptodon splachnoides Brid. Mant. Musc. p. 136. t. 2, et Br. univ. II. p. 225. — *Neckera splachnoides* Schw. Suppl. I. II. p. 151. t. 82. — *Orthotrichum splachnoides* Fröhl. in Brid. Sp. Musc. II. p. 4.

Campylodontium hypnoides Schw. Suppl. III. I. 1. t. 211! forma laxior.

Patria. In regionibus calidioribus Europae atque Americae septentrionalis rarissime occurrens et truncos arborum, praesertim fagorum, libenter vulneratos humidos habitans. Prope Elvacum Suevorum in truncis abietum detexit Fröhlich; circa Coloniam Agrippinam in fagis: Sehlmeyer; in tractu Odenwald: Nees ab Esenbeck; pr. Monachium et in monte Sveniak prope Flitsch et in valle Mogenzathal c. Breth in alpibus Julicis, alt. 3000 pedum: Sendtner; in Austria pr. Steyr: Sauter et pr. Weidlich: Welwitsch; in trunco *Carpini Betuli* unico Pyrenaeorum in „Vallée du Lys" in zona montosa superiore: Spruce. — In Pensylvania legit Mühlenberg; in Nova Caesarea: Torrey; pr. Ebenezar: Beyrich. — *Junio.*

Planta pulcherrima. Flores masc. in vicinia feminei turgidi, fol. ovato-acuminatis concavis parvulis.

Sectio III. **Campylodontium** Dz. et Molkb. in Musc. Archip. Ind., non Schwägr. — Caulis densifolius crassus, robustus, foliis plicatis.

17. F. striata C. Müll.; dioica; cespitosa laete viridis; caulis arcuatim prorepens, dense foliosus, ramulis brevibus simplicibus crassiusculis obtusis curvatis vage ramulosus; folia caulina dense imbricata, subhomomalla, anguste ovato-lanceolata, breviuscula, profunde plicata, margine basi revoluto, subintegerrimo, nervo unico tenuissimo, infra medium evanido, ob plicam indistincto viridi, cellulis elongatis angustiusculis pellucidis mollibus virescentibus, alaribus laxe quadratis pellucidis intus granulosis; perig. vaginantia lanceolata, magis acuminata acuta, erecta; theca in ped. longiusculo luteo-rubro laevi erecta oblongo-cylindrica, microstoma, operc. brevi conico obtusiusculo, calyptra laevi; perist. simplicis dentes externi, breviusculi late lanceolati, infra marginem oriundi, firmi coriacei, striatuli, linea mediana laevissima notati, laeviter trabeculati, tenues, siccitate recurvi, humore inflexi.

Campylodontium striatum Dz. et Molkb. Musc. Archip. Ind. p. 123. t. 39.

Patria. Java, in monte Simpai ad arborum truncos: Korthals.

Fructum non vidimus quidem, e peristomio tamen delineato et descripto muscus huc certe pertinere videtur.

Fabronia delenda.

F. ? Mariana Schw. in Voy. autour du Monde par M. L. de Freycinet. Bot. Par. 1826. p. 227. *Bartramia uncinata* est.

Gen. III. **Neckera** Hdw.

Fund. Musc. II. p. 93. — *Braunia* Br. Europ. — *Hedwigidium* ib. — *Haplohymenium* Dz. et Molkb. — *Entodon* C Müll. — *Dichelyma* Myrin. — *Leucodon* Schw. — *Asterodontium* Schw. — *Antitrichia* Brid. — *Sclerodontium* Schw. — *Hedwigia* Hook. — *Harrisonia* Spreng. et al. — *Leptodon* Web. — *Lasia* Brid. — *Isothecium* al. — *Rhystophyllum* Ehrh. — *Climacium* Mohr. — *Pterigynandrum* Hdw. — *Leptohymenium* al. — *Pilotrichum* P. B. ex parte. — *Leskea* antiq. — *Hypnum* antiq. — *Fontinalis* L. Hedw. partim.

Calyptra *dimidiata.* Peristomium simplex v. duplex. Externum: dentes sedecim aequidistantes v. saepius plus minus geminati, lanceolato-acuminati, transversim plus minus distincte trabeculati, linea longitudinali exarati, infra orificium oriundi, *e lamina duplici compositi*, saepius carnosi albidi v. cornei fragiles crocci, laeves v. rugulosi, interdum in crura plura dilacerati. Internum: dentes similes v. ciliaeformes capillares, solidi v. carinati et pertusi seu hiantes, basi liberi v. in membrana plus minus exserta haud vel vix carinata positi, appendicibus transversalibus conflatis saepius omnino v. partim cancellati, albidi flavidi crocci v. purpurei, laeves v. rugulosi, interdum aborti, *ciliolis interjectis nullis.*

Patria. Per totum orbem terrarum.

Peristomia maxime variantia typice nunquam divergunt et genera bene distincta plura nunquam constituunt. *Fabroniae* adeo et *Rhegmatodontes*, congeneribus pluribus transientibus a peregrinatoribus detectis, melius forsan ad *Neckeras* pertineant; nam peristomia sua notas distinguendi graves jam nunc non praebent. *Fabroniae* sectionem naturalem pulcherrimam, post *Leptohymenium* sedem optime tenentem, constituant; *Rhegmatodontes* sectionem *Leptohymenii* haud male ornent. — Congeneres plurimi ob ramos fertiles longiores cladocarpici et columella plerumque longius exserta praediti observantur.

Sectio I. **Euneckera.** Caulis *complanatus* distiche foliosus, ascendens, *pinnatim ramosus*; folia transverse undulata v. plana, *quadrifarie disposita*, *ligulate oblonga*, plus minus asymmetrica, laevia 1—2 nervia, elliptice areolata. Theca exannulata, exserta v. immersa.

Distichia Brid. II. p. 238.

Patria. Per orbem terrarum totum.

Subsectio I. **Leiophyllum.** Folia laevia, haud transversim rugulosa.

a. *Folia uninervia.*

1. **N. Javanica** C. Müll.; *dioica;* caulis secundarius elatus, basi longa nuda, foliis lanceolatis acuminatis squamaeformibus integerrimis obsoletinervibus dense obtectus, ramosissimus, ramis remotis cauliformibus v. densis tenuioribus 2—3 pinnatus, pallidus; folia caulina magna, ramea minora, omnia laxe imbricata, oblique inserta, e basi *latiuscula* sensim dilatato-ligulata, sed apice grosse excise serrata, planiuscula, nervo tenui pallido ad medium producto, cellulis pallidis incrassate ellipticis, *alaribus utrinque nervi amoene ventricose impressis badiis* minutis incrassatis; perich. squarroso-reflexa, e basi vaginante longe tenuiter acuminata integerrima obsoletinervia; theca in ped. breviter exserto ovalis fusco-badia nitida urceolata; perist. elongati d. ext. longe lanceolato-acuminati, inferne densius articulati et rugulosi obscurio-

res, linea media obsoleta exarati, albidi, int. aequilongi carinati latiusculi lutei medio late hiantes, in membrana breviuscula sulcata lutea positi.

N. dendroides Hsch. et Reinw. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 714.

Patria. Java.

A *N. decomposita* simillima notis cursive impressis primo momento distinguitur.

2. N. decomposita C. Müll.; caulis repens; divisiones erectae 2—3 unciales, bi-vel tri-pinnatae dendroideae veluti frondosae, inferne nudae et foliolis squamaeformibus remotis obtectae, lutescentes; folia caulina magna, ramea minora, omnia laxe imbricata, oblique inserta, e basi angusta sensim dilatato-ligulata, sed apice grosse excise serrata, planiuscula, nervo tenui pallido ad medium producto, cellulis pallidis incrassate ellipticis, *alaribus haud conspicuis.*

Pterygophyllum decompositum Brid. II. p. 764. — *Leskea Omalia decomposita* Brid. Hb. — *Hypnum fasciculatum* Desv. in litt. ad Bridel.

Patria. Hispaniola: Hb. Desvaux.

Sterilis sola nota quidem, sed tamen a *N. Javanica* proxima caractere laudato certe distans.

3. N. Australasica C. Müll.; *dioica; N. Javanicae* simillima, sed folia caulina oblongo-ligulata serrato-dentata et *ramea ovato-rotundata*, theca magis oblonga. †.

Climacium neckeroides Brid. II. p. 276. — *Neckera dendroides* Hook. Musc. Exot. t. 69.

Patria. Insula Owyhee Australiae: Menzies 1793.

4. N. leucocaulon C. Müll. (Bot. Zeit. 1847. p. 827.); *dioica*, ramosissima; rami ascendentes dendroidei compressi; caulis inferne nudus et foliis albidis dense imbricatis *latissimis* vaginanti-squamaeformibus *brevifer acutis* evanidinervibus arctissime obtectus, superne ramis *dichotome divisis attenuatis longiusculis;* folia *late elliptico-oblonga*, basi subobliqua, *caviuscula, margine inferne re-*

voluto apice serrulato, cellulis *brevibus angustis subincrassatis mollibus viridiusculis.*

N. dendroides Mont. in D'Orbigny Voy. Vol. VII. 2. p. 110, in Boliviae sylvis humidis ad cort. arborum secus rivum Icho dictum in terra nationis Yurucari lecta?

Patria. Chile: Pöppig, Coll. Pl. Chil. III. No. 270 (48), in truncis sylvarum opacarum inter Antuco et Rio Rucuë m. Nov. lecta.

A *N. Javanica* et *Australasica* similibus notis laudatis longe differt, sterilis tantum nota.

b. *Folia binervia.*

5. N. complanata Hüb. (Muscol. Germ. p. 576.); *dioica;* caulis secundarius ascendens tener anguste complanatus breviter pinnatus nitidissimus viridis v. lutescens; folia caulina dense distichacea, *late ovato-oblongo-ligulata, breviter acuminata, parum asymmetrica, planissima, basi vix auriculata, subintegerrima,* margine erecto, nervis binis tenuissimis pallidis brevibus, cellulis ellipticis v. anguste linearibus, basi luteis, superne pallidissimis, mollibus; perich. cylindrum angustissimum exsertum sistentia, convolutaceo-lanceolato-acuminata, longius et laxius reticulata, enervia, paraphyses permultas includentia; theca in ped. longiuscule exserto flavido laevi erecta ovalis microstoma badia, exannulata, operc. oblique aciculari; perist. d. ext. breviter lanceolati lutescentes fragiles, linea media et trabeculis laevibus praediti, int. *irregulares rugulosi externis adglutinati fugacissimi.*

Leskea Omalia complanata Brid. II. p. 327. — *L. complanata* Hdw. Fund. Musc. II. p. 93. t. 10. f. 62—65. — *Hypnum complanatum* L. Sp. Pl. p. 1588. — *H. ornithopodioides* Scop. Fl. Carn. p. 150. — Hypnum pennatum compressum et splendens, capsulis ovatis. Dill. Musc. p. 268. t. 34. f. 7.

Patria. Per totam Europam ad truncos arborum et fruticum sylvestrium et campestrium umbrosarum humidarum, rarius ad rupes et muros. — *Vere,* sed raro fertilis.

6. **N. lelophylla** Gümbel (in schedulis ad Sendtner); *N. complanatae* simillima, sed *tenerrima*, folia *minora subrotundato-ovata, obtusa vix acuminata*, cellulis *magis rotundis*.

Patria. Draga d'Orlich prope Tergestum: Sendtner. Hb.

Sterilem tantum vidimus. Ex habitu inter *N. complanatam* et *Omaliam trichomanoidem* medium tenet.

7. **N. glabella** Sw. (Fl. Ind. Occ. III. p. 1782.); caulis secundarius late complanatus planissimus *rigidissimus nitidus, in ramos breviusculos apice tenues flagelliformes* inordinate divisus; folia caulina dense imbricata, *haud rugosa, planissima, e basi angusta asymmetrico-spathulato-ligulata rotundate obtuso-acuminata, apice summo serrato*, nervis binis brevibus, cellulis ellipticis mollibus chlorophyllosis; perichaetia perpauca, foliis externis et internis *N. distichae;* theca subimmersa ovata, operculo cuspidato.

N. Distichia glabella Brid. II. p. 342. — *Leskea glabella* Hdw. Sp. Musc. p. 235. t. 59. — *Hypnum glabellum* Sw. Prodr. Fl. Ind. Occ. p. 140.

Neckera Patagonica Brid. l. c. — *Pilotrichum Patagonicum* P. B. Prodr. p. 83. — Sphagnum pennatum, planum. Dill. Musc. p. 249. t. 32. f. 7; e patria et icone Dilleniana species diversa videtur!

Patria. Jamaica, ad truncos arborum in montibus: Swartz. Mexico, circa Xalapa: Schiede et Deppe.

Fructus sed imperfectos detector solus vidit. A *Pilotrichò undulato* haud dissimili notis laudatis toto coelo differt.

8. **N. Trachyloma** C. Müll.; *dioica?* caulis repens; ramus primarius late complanatus, erectus digitalis v. palmaris *rigidus* basi subnudus, apice longiusculo indiviso, medio ramulis erecto-patentibus distichis inaequalibus longiusculis obtusis complanatis simplicibus pinnatus; folia caulina majuscula pallide viridia nitentia, bifariam imbricata, late ovata obtusa, acumine brevi, *serrulata* subenervia *indistincte striata v. plicata;* perich.

multo minora, serrulata, ext. ovata breviter acuminata concava, int. longe acuminata vaginata angusta; theca in ped. brevi *elongate cylindracea turgida* intense fusca brunnescens erecta, operc. *subulato* theca plusquam dimidio breviori; perist. d. ext. longi filiformes transversim striati rubri, int. setacei flavi capillares hic illic denticulati, in membrana brevi flavida positi. †.

Neckera planifolia Hook. Musc. Exot. t. 23.

Patria. In sinu Dusky Bay dicto: Menzies 1791.

N. planifoliae simillima, et caracteribus laudatis prorsus differt. — An folii structura cum illa *N. planifoliae* conveniat, latet.

9. N. planifolia Hdw. (Sp. Musc. p. 206. t. 48.); *dioica? N. Trachylomati* simillima, sed *mollis* et rami primarii usque ad apicem pinnati; folia caulina *implana, haud plicata, mollia,* apice magis quam basi concava, sublutescentia nitida, margine erecto *subdenticulato,* ad basin parum revoluto, nervis binis brevibus obsoletis, cellulis subviridibus *mollibus,* longiusculis angustis, alaribus permultis laxe quadratis pellucidis, intus grosse granulosis, planiusculis; theca in ped. *perbrevi apice arcuato* rubro erecta *turgide majuscule oblonga macrostoma,* operc. *conico* rubro.

Trachyloma planifolium Brid. II. p. 278, ex parte.

Patria. Ex insulis Australibus habuit Hedwig.

Fructum non vidimus.

Species incertae sedis.

1. Omalia Besseri Łobarz. (in Haidinger Naturw. Abhandl. I. p. 48. 1847.); dioica; cespites plani densi tenerrimi, homomalle radiantes; caulis filiformis repens 1—2 pinnatim divisus complanatus, ramis strictis tenerrimis obtusis v. filamentosis; folia caulina disticha orbiculato-elliptica, ramea late lanceolata, glaberrima absolute enervia, integerrima; perich. late linearia cuneato-truncata argute serrulata; perig. lanceolata concava subulato-apiculata. †.

Patria. Ad saxa arenosa humidiuscula umbrosa sylvatica agri Podolici Leopoliensis, ibidem in fagetis pago Lisienice vicinis: de Łobarzewski 1841. m. Junio raram et sterilem legit. In promontoriis subalpinis Austriae inferioris, scilicet in convallibus amoenissimis, Quercetis, Fagetis, sylvisque *Pini Austriacae* vestitis, ad occidentem thermarum Baaden sitis, ubi ad arbusculae cujusdam truncum, m. Septembri anni 1844 semel cespitulum legit Dr. Aloisius Putterlik.

Auctor c. *Hypno trichomanoide, Webbiano* et *Neckera complanata* comparavit. E descriptione cum *N. leiophylla* partibus multis convenit, sed folia absolute enervia descripta sunt, quare cum illa haud conjungamus. *Neckera* vera videtur.

2. Omalia lentula Wils. (Ann. and Mag. of Nat. Hist. XX. 1847. p. 379.); caulis distiche subbipinnatim ramosus 2—3 uncialis, ramis complanatis brevibus; folia caulina disticha ovato-falciformia acuminata serrulata enervia nitidissima laete viridia tenuissime areolata; perich. lanceolato-attenuata. †.

Patria. Jamaica, ad Port Royal, arborea? G. M'Nab legit.

Hypno trichomanoidi et *Neckerae glabellae* ex auctore simillima. Sterilis tantum observata.

Subsectio II. **Rhystophyllum** Ehrh. Crypt. Exs. No. 97. — Folia transversim rugosa.

A. *Theca immersa.*

a. *Folia uninervia.*

10. N. disticha Hdw. (Musc. Fr. III. p. 58. t. 22.); *hermaphrodita;* caulis longe repens; divisiones elongatae decumbentes subplanissimae, irregulariter pinnatae *pallide virides, parum rugifoliae tenerae flaccidae;* folia caulina *laxe* imbricata, e basi asymmetrica vix auriculata et vix coarctatâ late ligulata, truncato-obtusissima, apice rotundata parum excavata, margine erecto integro v. parum crenulato, nervo unico tenui elongato saepe subfurcato,

cellulis rotundatis v. *basi angustissime linearibus, teneris haud conflatis pallescentibus;* perich. ext. *minuta,* squarrosulo-reflexa, vaginanti-ovata, subito breviter acuminata, pallidissima, interna: paraphyses in foliola linearisubulata longa subtrichoidea loriformia apice subdenticulata transita; theca *subemersa* minute urceolata v. oblongo-cylindracea pallida, dein fusca nitida, vix annulata, operc. conico subulato *obliquo,* calyptra conica *dimidiata* glabra, perist. ext. dentes *angustissime lanceolato-subulati,* linea media exarati, *rugulosi pallidi, nodosiuscule articulati,* int. aequilongi *simillimi ad basin usque fissiles, haud carinati.*

Daltonia disticha Arn. Disp. p. 54. — *Neckera Distichia retusa* Brid. II. p. 243. — *Pilotrichum distichum* P. B. Prodr. p. 83. — *P. truncatum* P. B. Prodr. p. 83 c. specie praecedente omnino convenit et patria (Oware Africae) forsan commutata est. — *Fontinalis disticha* Sw. Prodr. Fl. Ind. Occ. p. 138.

Patria. Per Antillarum insulas et oras vicinas, *Pilotricho undulato* saepe consociata, loca eadem habitans. — *Junio ad Augustum.*

11. **N. fimbriata** Harv. (in Hook. Ic. Pl. Rar. t. 21. f. 4.); *dioica;* caulis repens, secundarius longe pendulus, flexuosus, in ramulos breves pinnatim dispositos v. longiores dichotomos lutescentes nitidos irregulariter pinnatim divisus, *gracilior, subturgide distiche foliosus;* folia caulina laxissime imbricata, humore patentissima, brevia, e basi *maxime auriculato-constricta* angustâ *late ovato-ligulata obtusa, brevissime acuminata,* rugulosa, caviuscula, margine erecto *apice eroso,* nervo ante apicem evanido subtenui, cellulis maxime incrassatis *grosse rotundatis,* basi magis oblongis, alaribus vix ullis; perichaetia turgida, foliis multis subulatis angustissimis veluti fimbriata; theca immersa ovalis parvula, operc. conico-rostrato.

Cum descript. in Lond. Journ. of bot. 1840. p. 13.

Patria. Nepal: Wallich.

Fructum et calyptram non vidimus.

12. **N. Moritzii** Hmp. (Linn. XX. p. 91.); *dioica;* caulis repens, divisiones elongatae, dense pinnatim ramosae, late complanatae; rami *plus minus elongati iterum pinnulati,* splendentes rugifolii, apice gemmaceo-incrassati; folia caulina laxe conferta erecto-patentia, parum rugosa, e basi asymmetrica late ovato-acuminata integerrima, caviuscula, margine erecto, nervo unico tenui fuscescente ad medium evanido, cellulis *anguste linearibus elongatis parietibus interruptis praeditis,* viridibus, *basilaribus badiis,* alaribus *laxiusculis badiis;* perich. elongate late lanceolato-acuminata stricta pallida, basi laxius reticulata, interna magis vaginantia, longinervia; theca immersa turgide ovalis, exannulata, operc. conico rostrato obliquiusculo, calyptra laevi fusca pachydermi; perist. d. ext. *angusti elongati pallidi laeves fragiles remote articulati irregulariter inter sese anastomosantes, flexuosi angulati,* interni *similes, sed tenerrime membranacei fugacissimi hyalini.*

Patria. Venezuela, Colonia Tovar Germanica, alt. 5500 pedum: Moritz.

N. acutifoliae simillima et peristomio *Prionodonti denso* affinis.

13. **N. acutifolia** Brid. (II. p. 757. sub *Distichia.*); *N. Moritzii* simillima e foliis cum hacce specie omnino convenit, fructu autem adhuc ignoto certe distabit.

Patria. Insula Bourbonis: Desvaux in Hb. Brideliano.

14. **N. Menziesii** Hook. (in Drumm. Musc. Americ. No. 162.); caulis anguste complanatus elatiusculus amoene lutescens, ramulis tenuissimis attenuatis patentibus brevibus simplicibus pinnatus; folia caulina *e basi haud auriculata symmetrico-ligulato-oblonga, obtusate acuminata, perfecte concava,* margine *inferne anguste revoluto, apice minute denticulato,* nervo *unico tenui longiusculo, superne saepe furcato.*

Patria. America septentrionalis, Rocky-Mountains, ad rupes, sed sterilis: Drummond.

Vestigiis indicatis a *N. pennata* longe recedit.

b. *Folia binervia.*

α. Folia obtusa.

15. **N. Lepineana** Mont. (Ann. d. sc. nat. 1848. X. p. 107.); *dioica? Pilotricho undulato* simillima, sed folia nervis *binis brevibus inaequalibus* instructa; perich. *interna perfecte late convoluta, paraphyses filiformes tubulosas paucas includentia;* theca *oblique rostrata, calyptra dimidiata obtecta;* perist. d. ext. longe lanceolato-subulati remote trabeculati, linea longitudinali exarati, *rugulosi albidi,* int. aequilongi *amoene perforati albidi rugulosi,* remote articulati.

Neckera undulata Mont. Voy. Pôle Sud, Crypt. p. 318. p. parte.

Patria. Taïti, ad truncos arborum decumbentem legit Lepine.

16. **N. obtusifolia** Tayl. (Lond. Journ. of bot. 1848. p. 193.); *dioica?* caulis prostratus longissimus pinnatus, pinnis patentibus complanatis pallide luteo-viridibus; folia distichacea imbricata erecto-patentia concava oblongo-acinaciformia obtusa, margine basi incurva, integerrima, summo apice incurvo, brevissime apiculato, enervia (?), siccitate subplicata; perichaetia subhomomalla, foliis ext. minutis, int. concavis acuminatis; theca erecta ovata immersa, operculo inclinate rostrato; perist. d. int. capillares et plerumque brevissimi in membrana brevi positi. †.

Patria. Monte Pichincha Andium Quitensium: W. Jameson 1827.

N. distichae simillima, sed latius complanata, foliis minus obtusis apiculatis enervibus et theca subemersa distat. Folia obsolete binervia putamus.

17. **N. intermedia** Brid. (Mant. Musc. p. 137.); a *N. pennata* foliis *obtuse rotundatis* differt.

Daltonia intermedia Arn. Disp. p. 54. — *Neckera Distichia intermedia* Brid. II. p. 241.

Patria. In Teneriffae insulae sylvis propo Laguna in arboribus: Rudley.

Sterilis hucusque nota, tamen a *N. pennata* e spec. auth. diversa videtur.

β. Folia acuminata.

18. **N. pennata** Hdw. (Musc. Fr. III. p. 47. t. 19.); *monoica;* caulis primarius longe repens, secundarius altiusculus late complanatus valde graciliter pinnatus, pallide viridis; folia caulina dense conferta distichaceo-imbricata, *e basi parum coarctata* minute *auriculatâ asymmetrico-lato-oblonga breviter acuminata, caviuscula subintegerrima,* parum undulata, pallida, incrassate lineari-areolata; nervis binis brevibus tenuibus inaequalibus, margine erecto; perich. vaginantia longe lanceolato-acuminata, basi laxius reticulata; theca immersa ovalis, exannulata, operc. conico obliquo, calyptra dimidiata glabra pallida; perist. d. ext. elongati anguste lanceolato-subulati nodosiuscule trabeculati, linea media obsoleta praediti albidi fragiles laeves, int. plerumque tenerrimi brevissimi fugacissimi laeves, perfecti aequilongi carinati remote articulati.

Daltonia pennata Arn. Disp. p. 54. — *Neckera Distichia pennata* Brid. II. p. 238. — *Cryptopodia pennata* Röhl. Deut. Fl. III. p. 82. — *Pilotrichum pennatum* P. B. Prodr. p. 83. — *Hypnum pennatum* Gmel. Syst. Nat. II. p. 1340. — *Weisia pennata* Schrank. Baiers. Fl. II. p. 445. — *Fontinalis pennata* L. Sp. Pl. p. 1571. — Sphagnum pennatum, undulatum, vagina squamosa. Dill. Musc. p. 250. t. 32. f. 9.

β. tenera; tenerior oligocarpa, ramulis in flagella tenuissima elongata flexuosa viridia productis, folia e cellulis diaphanis laxiusculis haud conflatis composita. *N. oligocarpa* Bruch. in schedulis! — *N. intermedia* Thedenius ex Ångström!

Patria. Per totam Europam, sed passim, in sylvis ad arbores, rarius ad rupes umbrosas et per terras mediterraneas ad Cap. b. spei producta. In America septentrionali haud rara videtur. Var. *β.* in Suecia, Lapponia et Finlandia. — *Vere,* sed rarius fertilis.

18. **N. Ehrenbergii** C. Müll.; *monoica; N. pennatae* simillima, sed folia caulina *margine basilari parum revoluto, basi nec coarctata, nec auriculata,* distinctius denticulata; perich. in acumen *longissimum distincte denticulatum valde rugulosum producta;* perist. d. ext. *late lanceolati robusti, haud fragiles, hyalini,* linea longitudinali distincta exarati, perfecte trabeculati, laeves, *int. externis multo breviores,* in membrana brevissima positi, *basi late apicem versus sensim angustius articulati, articuli densi basi veluti rotundato-serrati superne perforati hyalini,* laeves.

N. remota Schimp. in Hb. Schlechtendal.

Patria. Mexico: C. Ehrenberg.

20. **N. Hornschuchiana** C. Müll.; *monoica; N. pennatae* simillima, sed folia basi *margine parum revoluta, haud coarctata,* subintegerrima; perich. latissime lanceolata longe acuminata vaginantia, acumine *latiusculo subtorto subloriformi denticulato;* perist. d. ext. *N. Ehrenbergii,* int. e membrana brevissima externos aequantes *capillares, basi tantum carinati* laeves.

N. pennata Hsch. in Musc. Mexic., a Deppe et Schiede lectis, No. 1090.

Patria. Mexico: Deppe et Schiede.

21. **N. remota** Br. et Sch. (Musc. Abyss.); *monoica; N. pennatae* simillima, sed longissima, folia caulina basi *nec coarctata, nec auriculata, margine anguste revoluto,* cellulis anguste linearibus *nec incrassatis, nec conflatis, sed mollibus;* perist. d. ext. longe lanceolato-subulati, nodosiuscule articulati, *lutei tenerrime rugulosi,* linea longitudinali obsoleta exarati, int. parum breviores, *molles, linea media vix conspicua notati, igitur vix carinati;* remote articulati *lutei, tenerrime rugulosi.*

Patria. Abyssinia: W. Schimper.

22. **N. scabridens** C. Müll. (Bot. Zeit. 1847. p. 828.); *monoica; N. pennatae* simillima, sed *operculum longe oblique rostratum,* dentes perist. externi longissimi *latius-*

culo-lanceolati subulati *rugulosi, linea media subsecedente fissiles, remote laeviter trabeculati, haud fragiles*, int. aequilongi *rugulosi subsecedentes.*

Patria. Chile australis, in truncis sylvarum umbrosarum ad Antuco: Pöppig 1828. m. Novbr. legit.

23. N. Urvilleana C. Müll.; caulis elongatus *anguste complanatus*, folia *e basi longiuscule coarctata majus auriculata oblongo-acuminata, superne denticulata, distincte concava subcymbiformia*, e cellulis *elongatis angustissimis, parietibus interruptis instructis*, composita.

N. Distichia pennata β. denticulata Brid. II. p. 240.

Patria. Polynesia, in Otaheiti et Ualan, Ile Strong, Jun. 1824.: Dumont d'Urville.

A *N. pennata* notis laudatis longe distans, sed sterilis tantum nota.

24. N. angustifolia C. Müll. (Bot. Zeit. 1847. p. 828.); *monoica;* caulis repens; divisiones *humiles parce irregulariter pinnatae, rami pro plantulae exiguitate longi*, lati sordide virides, *apice vix incurvi;* folia caulina dense imbricata, *sicca et madefacta latus unicum spectantia, igitur subinflectentia*, e basi vix asymmetrica *longe anguste oblongo-lanceolata, subplanissima*, valde rugulosa, superne crenulata, nervis binis inaequalibus longiusculis, cellulis conflatis longiuscule ellipticis; perichaetia *falcata cauli arcte appressa igitur difficile conspicua*, foliis longe latiuscule acuminatis concavis, apice falcatis elongate densissime reticulatis; theca immersa *breviter urceolata*, dentibus externis *brevibus latiuscule lanceolatis laevibus fuscidulis teneris*, laeviter articulatis et linea media obsoleta praeditis.

Patria. Mexico: Hb. Miquel.

Ab omnibus congeneribus caracteribus explicatis differt. Calyptra, operculum et perist. internum non vidimus.

B. *Theca exserta.*

a. *Folia uninervia.*

25. N. exserta Hook. (in Schw. Suppl. III. I. 2. t. 244.); *monoica;* caulis secundarius humilis tener anguste complanatus, ramis *paucis inaequaliter longiusculis* subsimplicibus pinnatus, pallide viridis; folia caulina *e basi valde auriculato-coarctata reflexa et inde dilatatâ asymmetrico-angustato-ligulata truncato-obtusata, vix acuminata*, valde rugosa, planiuscula, nervo unico tenui viridi ultra medium producto, margine erecto subintegro, cellulis minute pellucide ellipticis mollibus; perich. *perpauca angustissime lanceolato-ligulata, paraphyses longiuscule exsertas cellulosas includentia,* pallidiora teneriora; theca breviter exserta tenella parva anguste cylindraceo-oblonga, exannulata, brunnescens, operc. conico oblique rostellato; perist. d. ext. brevissime lanceolati angusti teneri lutei, trabeculis crassiusculis et linea longitudinali praediti laeves, int. aequilongi capillares subfissiles flavidi subrugulosi; calyptra conico-dimidiata pilosiuscula.

Patria. Nepal.

A *N. pumila* caracteribus cursive impressis longe differt.

26. N. scrobiculata Nees ab Es. (in Nov. Act. Acad. Caes. Leop. XVI. Suppl. II. 1843. p. 477.); *monoica; N. exsertae* simillima, sed folia ubique *crenata, incrassate elliptico-areolata,* perichaetialia, pedunculus, theca, operculum et calyptra *N. exsertae.*

Patria. Manila, ad Hali-Hali: Meyen.

An peristomium ab illo *N. exsertae* distet, adhuc latet.

27. N. Plumula C. Müll.; *hermaphrodita;* caulis repens flexuosus nudus; divisiones erectae altiusculae *dendroideae* 1—2 *pinnatim ramosae, inferne subnudae frondiformes* planae, pallide virides; folia caulina laxe imbricata, ovate ligulato-oblonga breviter acuminata, vix au-

riculata, parum rugosa, margine erecto, apice crenulato, nervo fere ad apicem producto, cellulis minute rotundatis incrassatis; perich. ovato-lanceolata acuminata, nervo tenui infra medium evanido, infima ovato-subrotunda enervia; theca breviter exserta, *breviter urceolata* badia, oblique conico-rostrato-operculata, calyptra pilosa; perist. d. ext. *lanceolati longiusculi valde rugulosi albidi*, linea media exarati, *laeviter trabeculati*, int. aequilongi valde *fissiles rugulosi latiusculi, in membrana altiuscula positi.*

N. Hookeri Dz. et Molkb. Ann. sc. nat. 1844. p. 313! — *Pilotrichum Plumula* Nees ab Es. in Brid. II. p. 759.

Patria. Java, Sumatra: Korthals. Ex insula Java forsan habuit Nees ab Esenbeck.

A *N. exserta* caracteribus cursive impressis facile distinguitur.

28. N. flaccida C. Müll.; *monoica;* caulis secundarius *longissimus flexuosus decumbens flaccidus inordinate remote breviter pinnatus*, pallide viridis, tener; folia caulina *laxissime* imbricata, forma *N. Plumulae*, apice *grossiuscule eroso-dentata;* perich. e basi longius vaginante, margine subsinuato-undulatà subito acuminata subdenticulata; theca et peristomium *N. Plumulae.*

Patria. Java.

A *N. Plumula* inflorescentia monoica et notis caeteris laudatis certe differt.

b. *Folia binervia.*

29. N. crispa Hdw. (Fund. Musc. II. p. 93. t. 14. f. 47—48.); *dioica;* caulis repens, secundarius *longissimus late complanatus, pulcherrime crispifolius*, ramis *brevibus patentibus tenuioribus attenuatis remotis simplicibus v. elongatis et iterum pinnulatis* pinnatim ramosus obtusus, amoene fuscus, superne lutescens et viridis, nitidulus, *firmus;* folia caulina dense imbricata, e basi minute auriculata flavida late ovato-oblonga, breviter obtusate acuminata, *eleganter rugosa*, asymmetrica, margine

erecto minute crenulato, nervis binis inaequalibus, cellulis ellipticis pallidis conflatis; perich. cylindrum longe exsertum cuspidatum angustum sistentia, elongate vaginanti-ovato-lanceolata acuminata, pallidissima, elongate densissime reticulata, apice crenulata; theca in ped. *longius exserto* flavido elliptica microstoma, pallida, dein fusca, exannulata, operc. longe oblique aciculari pallido; perist. d. ext. elongate latiuscule lanceolato-subulati *homogenei* lutei *tenerrime rugulosi, remote laeviter articulati,* linea media obsoleta exarati, int. breviores capillares flavidi subfissiles vix articulati.

N. Distichia crispa Brid. II. p. 246. — *Leskea crispa* Schrank. Prim. Fl. Salisb. p. 835. — *Hypnum crispum* L. Sp. Pl. p. 1589. — H. pennatum undulatum crispum, setis et capsulis brevibus. Dill. Musc. p. 273. t. 36. f. 12. A.

Patria. Ad rupes praesertim calcareas atque schistosas et truncos arborum per totam Europam et in America septentrionali. — *Vere.* Rarius fertilis.

Ex Andibus Quitensibus muscum simillimum **Humboldt** retulit, cujus surculum et perichaetia vidimus et a *N. crispa* discernere nequivimus. Muscus tamen ab Europaeo separetur usque adeo, donec fructus accurate examinatus sit. — A *N. pumila* affini notis indicatis differt.

30. **N. Douglasii** Hook. (Bot. Misc. I. 1830. p. 131. t. 35!); *dioica?* caulis secundarius longissimus late complanatus, ramis simplicibus flexuosis patentibus attenuatis longis gracilibus remotis pinnatus; folia caulina subarcte disposita, longiuscule oblonga acuminata, *obsoletinervia,* acumine serrulata, *pallide viridia;* perich. ext. late ovata acuta subsquarrosa, int. sensim longiora, longiuscule acuminata convoluta; theca in ped. *vix exserto* ovalis rufo-fusca, operc. oblique rostrato; perist. d. ext. lutei angustati dense trabeculati, linea longitudinali exarati, int. aequilongi similes. †.

Patria. In rupibus et arboribus ad plagam occidentalem Americae septentrionalis prope flumen Columbia dictum: **Menzies, Douglas, Scouler.**

A *N. crispa* notis cursive impressis certe differt.

31. **N. Jamesoni** Tayl. (Lond. Journ. of bot. 1846. p. 59.); caulis laxe cespitosus procumbens subbipinnatus, ramis complanatis; folia laxe imbricata erecto-patentia, oblongo-lanceolata, undulata integerrima, enervia (?) basi margine incurvo; perich. arcte imbricata; theca in ped. exserto late ovata; perist. d. ext. lanceolato-acuminati trabeculati, int. capillares articulati in membrana brevi positi. †.

Patria. In Andibus Quitensibus: W. Jameson 1845.

Ex animadv. auctoris et *Wilsoni*, qui speciem varietatem putat, *Neckerae Douglasii* simillima, sed differt: colore viridi, foliis integerrimis sensim acuminatis et perichaetialibus basin thecae non superantibus.

32. **N. Chilensis** Schimp. (Ann. d. sc. nat. Ser. II. T. VI. p. 147. t. 9.); *monoica;* caulis vagus denudatus ramosus, ramis pinnatim divisis complanatis; folia caulina asymmetrica ovato-lanceolata; perich. spathulato-lanceolata convoluta; theca breviter exserta ovata, operculo oblique rostellato. †.

Patria. Chile, ad arbores: Bertero.

Planta speciosa, habitu et magnitudine *N. crispae* persimilis, quoad caracteres autem specificos a *N. pumila* difficilius distinguenda, a qua tamen inflorescentia monoica dentibusque perist. margine non incrassatis satis superque discrepat.

33. **N. pumila** Hdw. (Musc. Fr. III. p. 49. t. 20.); *dioica;* caulis secundarius *pusillus anguste complanatus, brevissime pinnatus, pallide viridis, indistincte crispifolius;* folia caulina *minora, inferne margine anguste revoluta, angustius saepe flexuose piliformi-acuminata;* perichaetia breviora; theca *brevissime exserta,* exannulata microstoma, angustior, operc. conico oblique *acuminato;* perist. *brevioris* d. ext. *trabeculis crassis* et linea longitudinali obsoleta praediti, *latere crenulati, albidi*

laeves, int. capillares vix breviores flavidi vix fissiles et vix articulati.

N. Distichia pumila Brid. II. p. 244. — *Hypnum pumilum* Gmel. Syst. Nat. p. 1341. — *H. Dicksoni* l. c. p. 1342. — *Pilotrichum pumilum* P. B. Prodr. p. 83. — Hypnum pennatum undulatim crispum, setis et capsulis brevibus. Var. minor. Dill. Musc. p. 273. t. 36. f. 12. B.

Patria. Per totam Europam temperatiorem; in Scandinavia ab Ångström in Scania Sueciae dubie indicatur. Truncos arborum sylvarum altarum umbrosarum regionum montosarum habitat. — *Vere*, sed rarius fertilis.

A *N. crispa* caracteribus explicatis facile distinguitur; a *N. complanata* foliis undulatis primo visu differt; a *N. pennata*, statu quoque sterili, statura tenera pusilla brevissime pinnata et foliis margine revolutis certe separatur.

34. **N. urnigera** C. Müll.; *monoica;* caulis secundarius pusillus tener, ramis *longiusculis inordinate et remote* pinnatus; folia caulina *distincte denticulata*, e cellulis *mollibus* anguste linearibus composita; perich. perpauca; theca *breviter urceolata macrostoma*, exannulata, operculo breviter *oblique-conico;* perist. d. ext. *latere laeves*, int. *nodose articulati.*

N. pumila Hsch. in Musc. Mexic., a Deppe et Schiede lectis, No. 1089.

Patria. Mexico: Deppe et Shiede pr. Xalapam legerunt.

A *N. pumila* proxima vestigiis datis optime distinguitur.

Euneckerae incertae sedis v. dubiae.

1. **N. obliquifolia** Hsch. (Fl. Bras. I. p. 56.); caulis erectus bipinnatim ramosus, ramis apicem versus attenuatis patentibus; folia disticha patentia pellucida pallide viridia, basi obliqua oblonga acuta serrata, nervo concolori infra apicem evanido, anguste lineari areolata. †.

Patria. Brasilia australis: Sellow.

2. **N. tenera** Hsch. (l. c.); caulis prostratus v. declinatus debilis pinnatim ramosus, ramis brevissimis; folia subdisticha remota erecto-patula ovata acuta argute serrata, concava, amoene viridia, nervo obscuriore infra apicem evanido, cellulis parallelogrammis. †.

Patria. Brasilia australis: Sellow.

3. **N. obtusata** Mont. (Ann. des sc. nat. XIX. 1843. p. 240.); caulis repens, secundarius decumbens simplex v. parce divisus late complanatus humilis obtusus sordide viridis; folia caulina late oblongo-ligulata obtusata integerrima valde rugulosa, margine erecto, parum asymmetrica, nervo longiusculo unico tenui, cellulis incrassate ellipticis.

Patria. Cochinchina, in cortice arborum pr. Tourane: Gaudichaud.

Pilotricho undulato habitu proxima. Fructus adhuc ignotus, forsan immersus.

4. **N. heterophylla** Brid. (Sp. Musc. II. p. 32.); caulis 8-pollicaris erectus ramosus, ramis ancipitibus, ramulis supremis tetragonis fructificantibus; folia trifaria dimorpha, lateralia patentia ovato-oblonga obtusa, media imbricata acuta; perich. longiora angusta, in urceolum conferta; theca immersa subrotunda. †.

Cryphaea heterophylla Brid. II. p. 252. — *Daltonia heterophylla* Arn. Disp. p. 54. — *Pilotrichum heterophyllum* P. B. Prodr. p. 83. — *Hypnum heterophyllum* Poir. — *Fontinalis heterophylla* Lour. Fl. Cochinch. II. p. 841.

Patria. Cochinchina: Loureiro.

An *N. obtusata* Mont.?

5. **Hypnum duplicatum** Schw. (Suppl. I. II. p. 198 et III. II. 2. t. 279.); caulis primarius repens; rami pedales aut spithamei, penduli, ramis aliquot vagis, rarius uno v. altero subramoso; folia bifariam imbricata, fere disticha, oblonga acuta, inaequalia integerrima, basi oblique inflexa, quaedam ab altero latere baseos quasi in duplicaturam inflexa, nitida, siccitate transversim undulata,

flavescenti-aurea, nervo tertiam partem folii emetiente, tenuissimo, parum conspicuo, concolori, cellulis oblongis laxiusculis.

Fissidens Dominicensis Brid. II. p. 707.

Patria. Insula Domingo.

E descriptione et icone *Neckera* vera erit.

Sectio II. **Entodon** C. Müll. Bot. Zeit. 1844. p. 740. — Rami *compressi*, *complanati*, *dichotome divisi decumbentes*, foliis *cochleariformi-concavis ovatis*, binervibus, cellulis *anguste linearibus* laevibus, alaribus laxe quadratis. Theca exserta. Plantae pleurocarpicae.

Patria. Per orbem totum terrarum, sed terras calidas praeferentes.

Omaliae generis *Hypni* sectio analoga.

A. *Caulis planissimus.*

a. *Pedunculus flavus.*

35. **N. macropoda** Hdw. (Musc. Fr. III. p. 55. t. 23.); *monoica?* caulis repens, ramis *elongatis flaccidis curvatis pallide luteis compressis, parum complanatis,* ramulis paucis inaequalibus breviusculis irregulariter pinnatis, nitidulis; folia laxe conferta patula, *angustissime longe lanceolato-acuminata,* concava *basi veluti in collum angustum constricta* et cellulis alaribus laxe quadratis planis pellucidis subgranulosis praedita, margine ibidem parum reflexo et inde erecto, apice solo distincte denticulata, nervis brevibus, cellulis angustissimis conspicuis dilute luteis; perich. basi latius vaginantia et laxe reticulata, in acumen planum flexuosum denticulatum producta, externa multo minora reflexiuscula; theca in ped. longissimo flavido stricto erecta cylindracea pallide fusca, operc. conico recte acuminato; perist. d. ext. late lanceolato-subulati *plani, tenuissime et remote trabeculati, integri,* interni *latiusculi carinati, integri, omnes intense aurantiaci, longitudinaliter ubique striatuli.*

Entodon macropodus C. Müll. Linn. XVIII. p. 707. — *Neckera* (*Distichia*) *macropoda* Brid. II. p. 248.

Patria. Jamaica, ad radices arborum montium: Swartz.

N. longifoliae proxima et notis laudatis distincta. Florem masculum non vidimus.

36. **N. longifolia** C. Müll.; *monoica? N. macropodae* simillima, *sed ramis brevioribus,* folia *siccitate quoque patula, haud appressa amoene lutescentia, basi haud in collum constricta,* perich. tenuissime acuminata, erecta, theca ampliore intensius fusca nitida.

Patria. India orientalis, Bombay, unde specimen unicum imperfectum misit Kegel ex horto Gendavensi Domini van Houtte.

Peristomium, operculum, calyptram et florem masculum nondum vidimus.

37. **N. plicata** C. Müll.; *monoica; N. longifoliae* proxima; *sed rami foliis magis appressis magis compressi robustiores;* folia caulina *late ovato-acuminata obliqua, parce longitudinaliter plicato-implana;* perich. *latissime* vaginantia, *latius* longissime acuminata, valde *reflexa;* pedunculus flavus *brevis,* theca minor pallidius fuscidula; perist. d. ext. *late lanceolati,* intense aurantiaci, *superne in cilia tria cohaerentia divisibiles,* dense approximati, crassi indistincte trabeculati, interni cilia in membrana *parum exserta* plana concolore tenuissima fissilia concoloria.

Entodon plicatus C. Müll. Linn. XVIII. p. 706. — *Isothecium Beyrichii* Mont. in Musc. Neelgher. Ann. d. sc. nat. 1842. No. 19.

Patria. Montes Neelgherienses Indiae orientalis: Perrottet.

38. **N. Hampeana** C. Müll.; *monoica;* latissime cespitosa appressa *longe effusa* planissima breviter dense irregulariter pinnata, ramis primariis *elongatis* attenuatis latiuscule *myosuroideo-complanatis, viridissimis,* nitentibus, flaccidis; folia caulina laxe conferta patula, *latissime cymbiformi-ovata obtusa, vix acuminata,* apice solo obsolete crenulata, cellulis angustissimis elongatis, alaribus

pellucidis laxis teneris *hexagonis* planiusculis, nervis *obsoletissimis;* perich. latissime vaginantia, longissime flexuose *late* acuminata, denticulata, multo laxius reticulata, parum reflexa; theca in ped. mediocri tenui flavido erecta cylindracea microstoma majuscula angusta pallide fusca, operc. conico oblique rostrato firmo, annulo latissimo; perist. d. ext. *longissimi late lanceolato-subulati, basi valde striatuli aurantiaci integri, superne pallidiores laeves, fissura hic illic hiante exarati,* remote articulati subtrigoni, interni subaequantes flexuosi nodosiusculi *carinati,* hic illic pertusi pallide aurantiaci *sublatiusculi.*

Entodon Hampeanus C. Müll. Linn. XVIII. p. 705.

Patria. Venezuela, prov. Caracas: Moritz in Coll. Thoreyana, No. 25.

Species pulcherrima, distinctissima.

39. **N. distans** C. Müll.; *monoica;* elongata prostrata planissima viridissima, *rigida,* rami ramulis longiusculis *rigide patentibus distantibus breviter cuspidatis phyllogonoideo-imbricato-foliosis eleganter pinnati;* folia caulina *perfecte planissime disticha,* dense imbricata, *angustiora, late lanceolato-acuminata* obtusiuscula, subcymbiformia, *magis plana,* apice obsolete crenulata, nervis obsoletissimis, cellulis *N. Hampeanae;* perichaetia *haud cylindracea, sed turgida, foliis maxime reflexis;* ped. flavidus longiusculus.

E. Hampeanus C. Müll. Linn. XIX. p. 214.

Patria. Venezuela, prov. Merida, Caripe: Moritz.

N. Hampeana proxima notis illustratis refugit. Thecam non vidimus.

40. **N. leptocarpa** Hook. et Wils. (Lond. Journ. of bot. 1846. p. 452. t. 15. L.); *monoica?* laxe cespitosa procumbens pinnata, ramis brevibus crassiusculis compressis attenuatis patentibus distantibus; folia caulina imbricata, erecto-patentia anguste elliptico-lanceolata concava, superne subdenticulata, nervis brevissimis obsoletis; perich. *dense vaginantia appresa* longius angustius

acuminata *erecta;* theca in ped. *brevissimo* flavido erecta *longe lineari-cylindracea, senectute pellucida, tenera,* operc. conico oblique acuminato; perist. d. ext. *brevissimi subtruncati,* linea longitudinali exarati. †.

Pterogonium Jamesoni Tayl. l. c. p. 59.

Patria. Monte Pichincha pr. Quito: W. Jameson 1845.

A *N. distante* proxima et *N. Beyrichii* notis cursive impressis differt. Peristomium internum nec Taylor, nec Wilson descripserunt.

41. **N. truncata** C. Müll.; *monoica;* habitus *N. Hampeanae,* sed rami breviores; folia *N. distantis*; perichaetia et folia perich. *N. Hampeanae;* theca in ped. *elongato* flavido tenui erecta *brevis cylindraceo-ovalis, ore aequali, veluti truncato, igitur macrostoma,* operculo conico *longe oblique aciculari;* perist. d. ext. longi late lanceolato-subulati, *fissura obscura non hiante notati, ubique concolori-fusciduli* et *rugulose striatuli, articulis rotundatis* remotis, plani, interni cilia dentes aequantia *valde regularia, magis fuscidula, rugulosa, articulis longis angustis,* diaphane carinatis vix hiantibus.

Patria. Chile: Pöppig.

Ob vestigia haec excellentia species ab omnibus congeneribus distinctissima, tenella.

42. **N. columnaris** Schw. (Suppl. IV. t. 319.); *monoica;* latiuscule complanata, ramis *brevibus, ramulis brevissimis patentibus,* pallide viridibus nitentibus planissimis; folia caulina patulo-imbricata, *late* ovato-acuminata obtusiuscula *concava,* margine superne denticulato, ubique erecto, nervis brevissimis, cellulis anguste lincaribus, alaribus paucis planis laxe quadratis pellucidis granulosis; perich. vaginantia, longiuscule anguste acuminata recta; theca in ped. longiusculo flavo erecta *cylindracea* fuscidula; perist. d. ext. longe lanceolato-subulati aurantiaci plani, indistincte trabeculati, fissura hic illic hiante exarati, cilia dentes aequantia tenuissima carinata nodo-

uscula, fissura hic illic hiante pertusa; columella longe exserta.

Entodon Schwägricheni C. Müll. Linn. XVIII. p. 705.

Patria. Brasilia: Hb. Reg. Berol.

N. truncatae proxima, sed foliis angustioribus, minus concavis, theca cylindracea longiore, dentibus haud strialis sed concolori-aurantiacis et ciliis multo angustioribus aurantiacis nodosiusculis differt. Operculum ignotum.

43. **N. Dregeana** Hsch. (Linn. XV. p. 139.); *monoica;* latiuscule complanata *planissima patulifolia* pallide viridis nitens humifusa, breviter et irregulariter pinnata, *gina inferna valde radicante;* folia caulina late ovato-cuminata, *aequalia, raro implana,* caviuscula, acumine obliquo denticulato latiusculo, cellulis alaribus tenerioribus, pallidioribus, nervis brevibus, margine infima basi ex reflexo; perich. late vaginantia longissime *tenuiter* cuminata, *haud vel vix reflexa;* theca in ped. mediocri tenuiusculo flavo tenuissimo stricto erecta cylindracea mediocris pallide fusca, haud nitida, operc. brevi conico oblique acuminato; perist. d. ext. breves lanceolato-*subuti, usque ad basin fere fissura unica exarati, longitudinaliter striatuli, plani,* remote articulati aurantiaci, interni concolores aequales tenuissimi nodosiusculi fissiles.

Entodon Dregeanus C. Müll. Linn. XVIII. p. 706.

Patria. Prom. b. spei, inter Buffel-Rivier et Key, valle sylvestri, alt. 800—1200', 14. Jun. 1832.: Drège; Phillipstown ad Kat-Rivier, Jun. 1827.: Ecklon, Olifantshoek in sylvis: Ecklon.

A *N. plicata* simili vestigiis laudatis differt.

44. **N. pallescens** C. Müll.; *monoica;* late dense caespitosa procumbens, ramis inaequalibus brevibus *subcomplanatis* pallide viridibus *senectute rubiginosis* valde visus, firmiusculus; folia caulina laxe conferta, *late ovata, in acumen plus minus longum, tenue et reflexum tenuissime denticulatum producta,* parum concava, *imbricata,* nervis inaequalibus breviusculis, cellulis angustissime linearibus pallide viridibus parum conspicuis, alari-

bus paucis *ventricosis* laxe hexagonis; perichaetia longa anguste cylindracea, foliis vaginantibus longius acuminatis *erectis;* theca in ped. mediocri flavido, senectute parum rubiginoso, erecta anguste cylindrica aequalis, *pallide olivacea, dein ochracea,* operculo brevi minuto oblique acuminato, *pallide olivaceo;* perist. d. ext. breves, lato-lanceolati, breviter subulati, ubique pallidius aurantiaci, fissura hic illic hiante exarati, *haud striati,* cilia *breviora* tenuissima concoloria.

E. macropodus C. Müll. Linn. XIX. p. 214. et Hmp. ib. XX. p. 82.

Patria. Venezuela, prov. Merida: Moritz.

A *N. Dregeana* proxima structura externa et interna laudata distans et omnibus partibus pallidis primo visu discernibilis.

45. **N. cernua** C. Müll.; *monoica;* procumbens, latiuscule complanata, ramis *brevibus, fasciculatis, iterum brevissime ramulosis,* pallide viridis nitens, *irregulariter deplanata, tenella;* folia caulina *irregulariter inflectentia,* laxe imbricata, brevia, e basi haud constrictâ lanceolato-acuminata, acumine obtusiusculo crenulato, nervis brevibus obsoletissimis, cellulis angustissime linearibus, alaribus laxe hexagonis pellucidis granulosis planis multis; perichaetia turgida, foliis late vaginantibus longissime et maxime reflexo-acuminatis integris, basi laxe reticulatis; theca in ped. longiusculo tenui flavido *elongate anguste cylindrica subcernua* microstoma pallide fusca; perist. d. ext. breves anguste lanceolato-subulati, trabeculis valde prominentibus densiuscule approximatis et fissura longitudinali hic illic minute pertusa, praediti, aurantiaci, superne pallidiores, cilia brevia tenuissima fissilia fuscidula.

Patria. Java: Zollinger Coll. No. 867.

Ab omnibus congeneribus theca inclinatione subcernua jam differt.

46. **N. virens** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 158.); *monoica;* caulis repens, ramis elongatis *angustissime complanatis* laxifoliis *teneris parce* breviter et inaequaliter ramulosis virentibus, vix nitidulis; folia

caulina latiuscule ovato-acuminata, breviter et acute acuminata, cochleariformi-concava, apice obscure denticulata, nervis brevibus, cellulis angustis pellucidis v. plus minus chlorophyllosis, alaribus valde granulosis, igitur obscuris, paucis, laxe quadratis; perichaetia *tenuissima*, foliis vaginantibus longe acuminatis erectis; theca in ped. *perbrevi tenerrimo* flavido *minute cylindraceo-ovalis olivacea*, operc. conico oblique acuminato; perist. dentes breves densissime approximati, late lanceolati, *in crura duo fissidentoidea, omnino fere secedentia tenuissima fissi*, indistincte trabeculati, aurantiaci, cilia tenuissima *integra*, dentes subaequantia concoloria.

Entodon fissidens C. Müll. Bot. Zeit. 1844. p. 740.

Patria. Brasilia, Serra dos Orgâos, ad rupes cujusdam catarractae: G. Gardner No. 76.

Teneritate partium omnium facile discernibilis. Flos masc. angustus.

b. *Pedunculus purpureus.*

a. Glaber.

47. **N. Sullivanti** C. Müll.; *monoica;* rigida *angustissime complanata virescens* nitida *gracillima*, ramulis *tenuissimis* subregulariter pinnatis; folia e basi parum coarctata *truncatâ* ovato-acuminata obtusiuscula, *apice crenulato, irregulariter complicata, saepe profunde concava*, cellulis alaribus teneris planiusculis pellucidis, *caeteris angustissime linearibus vix conspicuis brevibus*, viridibus; perich. angustissime longe lanceolato-acuminata; thecae in ped. *saepe aggregatis tenuissimis longissimis* purpureis *angustissime elongate cylindricae*, operc. *tenuissimis* conicis rostratis rectiusculis; perist. d. ext. longi angustissimi pallidi, cilia interna *tenuissima filiformia albida.*

Leskea compressa Sulliv. Musc. Allegh. No. 64.

Patria. Ad saxa in sylvaticis secus flumen French Broad Carolinae superioris: Sullivant.

A *N. compressa* notis cursive impressis longe differt et habitu *N. Beyrichii* proxima.

48. **N. complicata** C. Müll.; *monoica; N. Sullivanti* simillima, sed *parum latior et siccitate complicate complanata*, folia *regulariter concava*, e cellulis *elongatis perangustis distincte conspicuis pellucidis* areolata; perich. latius vaginantia longe acuminata laxius reticulata; theca in ped. longiusculo solitario crassiore purpurascente *anguste* cylindrica *robustior*, leptodermis pallida, operc. conico oblique rostrato robustiori; perist. d. ext. longissimi *intense fusci, apice divisibiles*, cilia interna *dentes aequantia angusta carinata concoloria fusca* divisibilia.

Entodon myurus Hmp. Linn. XX. p. 82?

Patria. Venezuela, prov. Caracas: Moritz in Coll. Thoreyana Hamburgensi No. 25. bis.

49. **N. Beyrichii** Schw. (Suppl. II. II. 2. p. 162. t. 197.); *monoica; N. complicatae* simillima, sed theca in *pedunculo longissimo intense rubro* anguste cylindrica erecta *intense rubra*, dentibus perist. externi *e basi usque fere ad apicem aequaliter angustis, fissura media longitudinali haud exaratis, solidis, trabeculis valde prominentibus valde articulatis lutescentibus*, interni ciliis divisibilibus *fuscidulis*.

Entodon Beyrichii C. Müll. Linn. XVIII. p. 708.

Patria. Brasilia, in saxis ad flumen Rio Bio Panga prope Padre Corco: Beyrich. In locis non indicatis Brasiliae: Blanchet Coll. No. 3868.

50. **N. compressa** C. Müll.; *monoica; N. cladorrhizanti* simillima, *sed complanata angusta, tenella;* folia caulina late ovato-acuminata obtusiuscula, integerrima, cellulis alaribus *teneris parum ventricosis multis leptodermibus haud constrictis;* perich. *E. cladorrhizantis*, pedunculus *brevis* glaber purpureus; theca *elliptica* erecta leptodermis, operculo conico oblique *rostrato;* perist. dentes ext. breves obscuri, cilia interna *quam maxime tenuia breviora.*

Entodon compressus C. Müll. Linn. XVIII. p. 707. — *Leskea compressa* Hdw. Sp. Musc. p. 232. t. 56. — Brid. II. p. 287. — *Hypnum Mühlenbergii* P. B. Prodr. p. 66.

Patria. Pensylvania: Mühlenberg. Ad ripas fl. Ohio: Engelmann Aprili 1835 legit.

51. N. myura Schw. (Suppl. III. I. 1. t. 217, caule latius delineato); *monoica;* angusta gracilis *compressa, haud distiche complanata,* lutescens nitidula, ramis brevibus attenuatis curvatis myosuroideis tenuibus paucis parce pinnata; folia caulina dense conferta cochleariformi-ovata, brevissime acuminata, acumine reflexo denticulato, concava, pagina externa nervis distinctis breviusculis praedita *transversaliter implana,* cellulis alaribus quadratis laxis granulosis pellucidis planis, caeteris angustissime linearibus, *striis aemulantibus;* perich. longe anguste acuminata; theca in ped. mediocri purpureo erecta *elliptico-cylindracea* microstoma, operc. *conico acuminato* obliquo; perist. ext. d. breves lutescentes, interni cilia aequalia tenuissima fissura longitudinali exarata luteola.

Pterogonium myurum Hook. Musc. Exot. t. 148. — *Pterigynandrum myurum* Brid. II. p. 176 et p. 750.

Patria. Nepal: D. Gardner.

A *N. Sullivanti, Beyrichii* et *complicata* proxima caracteribus laudatis differt.

β. Scaber.

52. N. angusta C. Müll.; *dioica;* latissime cespitosa procumbens compressa, *luride viridissima, dein rufescens,* ramis *longissimis flexuosis flaccidis,* breviter ramulosis, nitidulis; folia caulina *E. Perrottetii, obsolete denticulata,* e cellulis angustissimis minutis *vix conspicuis* areolata, *molliora;* perich. lanceolato-acuminata, apice distincte denticulata, basi haud lutea, *sed magis pellucida;* theca in ped. elongato gracili flexuoso superne scaberulo erecta *minute* elliptica, *parum verrucose papillosa* fusca, imperfecte annulata, operc. conico acuminato obliquo brevi, perist. d. ext. *longe lanceolato-subulati pallide lutei* parenchymatosi hypnoidei valde trabeculati, internum e ciliis brevibus imperfectis albidis fugacissimis compositum.

Patria. India orientalis, in vicinia urbis Bombay, unde copiose communicavit Kegel.

A *N. Perrottetii* longe differt et habitu *N. myurae* magis affinis. Flos masc. turgide gemmaceus, foliis late ovatis obtuse acuminatis.

B. *Caulis turgidius compressus.*

a. *Pedunculus flavus glaber.*

53. **N. Regnelliana** C. Müll.; *monoica;* caulis repens *sciuroideus humilis, crassiusculus homomallophyllus, ramis brevibus simplicibus densifoliis, haud complanatis, subcompressis,* pallide viridibus, nitentibus; folia caulina *lanceolata,* sensim acuminata acuta, *profunde concava et longitudinaliter pluries valde plicata, basi subrotundata,* haud constricta, margine *plerumque usque ad medium valde revoluto,* apice obsolete denticulato, cellulis anguste linearibus *pellucidis,* alaribus multis regulariter quadratis pellucidis, nervis subnullis; perich. late vaginantia, longissime tenuissime acuminata integerrima, erecta, externa pro more minora reflexiuscula; theca in ped. mediocri flavido *ovalis brevis macrostoma.*

Entodon plicatus Hmp. Linn. XXII. p. 582.

Patria. Brasilia, ad Caldas in Minas Geraës: Regnell Coll. II. No. 357.

Quoad thecam *N. truncatae* similis, sed ab ea ceterisque congeneribus praesertim foliis profunde plicatis longe refugit. Perist. non vidimus.

54. **N. flavescens** C. Müll.; *monoica;* longe repens, vage ramosa, ramis pinnatis, ramulis brevibus *amoene flavescentibus* densifoliis attenuatis compressis, haud complanatis, curviusculis; folia caulina sicca et madefacta dense imbricata, forma et structura *N. Regnellianae;* perichaetialia ejusdem speciei; pedunculus *longissimus flavissimus,* theca *longe anguste cylindracea* pallide fusca, operc. conico oblique acuminato; peristomii dentes breves, in crura duo subsecedentia tenuissima ex apice ultra medium fissi pallide aurantiaci, basi dense trabeculati, cilia *brevissima albida fugacissima.*

Pterigynandrum flavescens Brid. II. p. 193. — *Pterogonium flavescens* Hook. Musc. Exot. t. 155.

Patria. Nepal Indiae: D. Gardner.

Planta pulcherrime flava, elegans, a *N. Regnelliana* simillima vestigiis illustratis facile discernibilis.

b. *Pedunculus purpureus glaber.*

55. N. orthocarpa C. Müll.; *monoica? procera aureo-lutescens, nitidissima, ramis subteretibus, ramulis multis densissimis elongatis teretibus curvatis aequalibus eleganter pinnata;* folia caulina dense imbricata, e basi angustiore oblongo-ovata *obtusa, brevissime acutata,* cellulis alaribus *subventricosis incrassatis* fuscidulis v. griseis, caeteris angustissimis; perich. *anguste oblonga obtusa;* theca in ped. longissimo erecta cylindracea microstoma, operculo et perist. *N. cladorrhizantis.*

Entodon insidiosus Spruce Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 102. — *E. Montagnei* C. Müll. Linn. XVIII. p. 708. — *Isothecium insidiosum* Mont. Ann. d. sc. nat. 1843. p. 352. t. 15. — *Hypnum paradoxum* Mont. in sched. — *Hypnum Schreberi γ. orthocarpon* Brid. II. p. 422. — *H. orthocarpon* La Pyl. in Brid. l. c. — *H. concinnum* De Not. Mant. n. 18.

Patria. In terra saxisque calcareis circa Parisios et Turones (Tours): La Pylaie. Alsatia et Helvetia: W. P. Sch. In Pyrenaeis: Spruce. Prope Carlsruhe et Monachium Germaniae: A. Braun. In pascuis aridis subcollinis Italiae superioris: De Notaris. In calcareis ubique forsan occurrit.

56. N. coarctata C. Müll.; *monoica;* longe repens, rami longissimi robusti compressi, ramulis patentibus flaccidis curvatis attenuatis subsimplicibus inaequaliter pinnati, flavescentes; folia caulina bifariam imbricata laxe erecta plana, *e basi distincte coarctatâ* ovato-acuminata, integerrima, enervia (?) cellulis anguste linearibus, alaribus laxe quadratis; perich. duplo longiora et longius acuminata; theca in ped. *perbrevi* rufescente erecta oblongo-cylindrica tenuis flavo-badia, oper. *conico subulato, thecam aequante,* rectiusculo; perist. d. ext. *albi-*

cantes tenerrimi articulati lanceolato-subulati, cilia aequalia tenuissima concoloria. †.

Neckera flavescens Hook. Transact. of Linn. Soc. IX. p. 314. t. 27. f. 2. — Schwägr. Suppl. II. 2. p. 156. t. 141. — Brid. II. p. 234.

Patria. Nepal Indiae.

Habitus et color ex obs. *Schwägricheni Hypni Schreberi;* species itaque *N. orthocarpae* proxima videtur.

57. **N. cladorrhizans** Hdw. (Sp. Musc. p. 207. t. 47.); *monoica;* late cespitosa prostrata, ramis *e viridi lutescentibus nitidulis* crassis compressis densifoliis, ramulis *brevibus irregulariter pinnatim dispositis* attenuatis; folia caulina *e basi constricta, utrinque cellulis laxe quadratis pellucidis pachydermibus granulosis praedita,* margine reflexâ *late ovato-acuminata,* apice denticulata, concava, margine erecto, nervis brevissimis tenuibus, cellulis perangustis elongatis; perich. convolutacea longe acuminata, integerrima basi laxius reticulata longius sed tenerrime nervosa v. enervia, externa minora reflexa; theca in ped. elongato purpureo laevi erecta cylindracea, ore angustiori, rubens, operc. conico oblique acuminato brevi; perist. ext. d. *longi* erecti fusci, int. *aequales angustissimi, linea longitudinali exarati flaviduli.*

Brid. II. p. 230. — *Entodon cladorrhizans* C. Müll. Linn. XVII. p. 707. — *Isothecium Schleicheri* Schimp. in litt., species Europaea quae tamen c. Americana omnino convenit. — *Anomodon cladorrhizans* Hüb. Musc. Germ. p. 557.

Patria. Ad truncos arborum et in rupibus praesertim schistosis calcareis umbrosis subalpinis et muris Tirolis, Helvetiae, Salisburgiae, Pyrenaeorum et Americae septentrionalis, ubi primus legit Mühlenberg Pensylvaniae. — *Hyeme* et *vere.*

Flos masc. anguste gemmaceus, foliis convolutaceo-ovatis reflexiuscule acuminatis.

58. **N. breviseta** Hook. et Wils. (Lond. Journ. of bot. 1842. p. 419. t. 24.); *monoica; N. cladorrhizanti* simillima, *intense viridis, dein apicibus ramorum ru-*

fescentibus; folia caulina late ovata, *longe et tenuiter plerumque oblique acuminata,* apice parum denticulata, *magis chlorophyllosa mollia,* cellulis alaribus *ventricosis tenerrimis* pellucidis v. granulosis; perich. *multo teneriora laxius reticulata;* pedunculus brevior; perist. d. ext. distincte trabeculati breves, int. *irregulares, externis adglutinati.*

Patria. America sept., Ohio: Sullivanti Musc. Allegh. No. 79.; prope St. Louis ad flum. Missisippi: Drummond primus legit.

59. **N. Abyssinica** C. Müll.; *monoica;* dense cespitosa, ramis *crassiuscule julaceis parum compressis luteis* rectis v. curvatis, saepe valde radicantibus, intertextis brevibus irregulariter divisa; folia caulina densissime conferta, humore patula, late ovata, in acumen plus minus longum tenue obsoletissime denticulatum subobliquum producta, *cochleariformi-concava, margine ubique valde revoluto,* nervis brevissimis, cellulis angustissime linearibus pallidis v. luteolis, alaribus laxe quadratis pachydermibus multis pellucidis granulosis; perich. longiora, anguste lanceolato-acuminata, basi subenervi laxe reticulata vaginante, *stricta, superne valde denticulata,* externa multo minora, magis ovata, apice reflexiuscula; theca in ped. elongato purpureo flexuoso erecta, *cylindraceo-elliptica longiuscula,* microstoma, fusca haud nitida, glabra *exannulata,* operc. conico oblique *subulato;* perist. brevissimi ext. d. lanceolati *densissime indistincte trabeculati rubiginosi carnosi, linea longitudinali obsoleta, ad latera pallidiora,* interni *cilia fugacissima solitaria brevia latiuscula carinata irregulariter articulata flavida laevissima.*

Entodon Schimperi Hmp. Linn. XX. p. 83. — *Leptohymenium julaceum* Br. et Sch. in Musc. Abyss. No. 423.

Patria. Abyssinia, in arborum truncis prope Adesulam: W. Schimper, 4. Sept. 1838.

N. seductrix proxima; ab hacce species Abyssinica peristomio jam longe refugit. Flos masc. turgide ovalis, fol. late ovatis breviter acuminatis.

60. N. seductrix Hdw. (Sp. Musc. p. 208. t. 47.); *monoica; N. Schimperi* simillima, *e viridi lutea*, nitida; folia caulina late ovata obtusa, cochleariformi-concava, acumine brevissimo recto, margine *integerrimo erecto*, infima basi solo parum revoluto; perich. longiora, erecta, anguste lanceolato-acuminata, valde complicato-concava, *integerrima*, nervis longis latiusculis, externa minora, apice reflexiuscula; theca in ped. *perbrevi* purpureo longiuscule cylindracea rufescens, *imperfecte annulata*, operc. conico oblique acuminato; perist. dentes breves lanceolati dense distincte trabeculati aequidistantes, linea longitudinali vix conspicua exarati, *ubique aurantiaci*, cilia breviora *perfecta* flavida regularia angusta carinata.

Brid. II. p. 231. — *Entodon seductrix* C. Müll. Linn. XIX. p. 214. — *Pterigynandrum obtusifolium* Brid. II. p. 182! — *Pt. Carolinianum* ej. II. p. 184! — *Pterogonium Carolinianum* Schw. Suppl. I. I. p. 108.

β. gracilis; rami tenuiores longe myosuroïdei attenuati; pedunculus longiusculus, theca angustissima subcernua. Sulliv. Musc. Allegh. No. 78.

Patria. America septentrionalis, ubi in terra et radicibus arborum haud infrequens videtur et mensib. *Februarii* et *Martii* fructus maturat. In Pensylvania primus legit Mühlenberg.

Flos masc. turgidus, fol. latissime ovatis obtuse acuminatis.

c. *Pedunculus purpureus scaber.*

61. N. Perrottetii C. Müll.; *dioica;* elongate repens tenuicaulis, ramis ascendentibus longiusculis crassiusculis rigidis breviter ramulosis fertilibus, lutescentibus nitidulis, *laxe julaceis, vix* compressis crassiusculis; folia caulina laxius imbricata, anguste ovato-acuminata, concava, margine infimae basis parum revoluto, superne remotiuscule distincte eroso-denticulata, cellulis *alaribus minutissimis incrassatis luteolis paucissimis* planiusculis, caeteris angustissimis brevibus lineari-oblongis, nervis *ad medium fere productis;* perich. vaginantia longe acu-

minata, apice denticulata, longius sed incrassate areolata, externa multo minora squamaeformia rotundato-ovata obtusa, brevissime acuminata, omnia basi lutea; theca in ped. longo rigido *scaberulo* purpureo erecta *majuscula, turgide elliptica, spinoso-papillosa*, fusca, operc. conico oblique acuminato laevi, calyptra apice asperula; perist. dentes crassi lato-lanceolati extrorsum reflexiles, *breves*.

Symphyodon Perrottetii Mont. Ann. d. sc. nat. XII. 1841. p. 279. c. tab.

Patria. India orientalis, ad imos arbor. truncos dense cespitosa, in montibus coeruleis peninsulae Indicae, Neelgherries ab Anglis nuncupatis, imprimis circa Ootacamund: Perrottet.

Muscus perbellus, cujus peristomium internum in speciminibus paucis imperfectis haud vidimus. — *Symphyodon* Mont., ab auctore „*ob dentes peristomii simplicis membrana horizontali basi conjunctos*" in notas false observatas v. haud existentes genus conditum delendum erat. Peristomium ex analogia *N. angustae* et *Abyssinicae* duplex imperfectum certe erit. — Ab omnibus *Entodontibus* theca spinoso-papillosa jam primo momento longe differt.

Species incertae.

1. **Anoectangium planifolium** Hdw. (S. Musc. p. 44. t. 6.); caulis depressus simpliciusculus, latiusculus, viridis, folia caulina patula, late ovata obtusiuscula, acumine torto brevi denticulato terminata, planiuscula, enervia; perich. pariter setifera; theca in ped. breviusculo purpureo laevi arcuato erecta, sed curvatura pedunculi subhorizontalis, brunnescens, siccitate striata, operc. conico-subulato recto. †.

Brid. II. p. 167.

Patria. Insulae Australes: Banks.

Peristomium Hedwig non vidit, sed columellam longe exsertam. Ex analogia huc retulimus.

2. Actinodontium ascendens Schw. (Suppl. II. II. 1. p. 75. t. 174.); hermaphroditum; caulis brevis dense cespitosus robustus declinatus compressiusculus latiusculus; folia laxe imbricata, sicca appressa, humore patentiuscula oblonga breviter mucronata, paulum obliqua, tenera pellucida integerrima albida, nervo basilari geminato debili, cellulis oblongis; perich. triplo breviora paullo latiora et acutiora subenervia laxius reticulata; theca in ped. breviusculo rufo laevi erecta, cylindracea aequalis, interdum curvula, fusco-badia, operc. e convexo rostrato recto; perist. d. ext. late lanceolati robusti turgidi leviter trabeculati albidi, int. multo angustiores solidi aequilongi albidi, in membrana haud exserta albida positi. †.

Brid. II. p. 756.

Patria. Java: Reinwardt.

Entodon videtur, nam calyptra, ab auctore in contextu campanulata descripta et in tabula (Fig. 17.) depicta, in Fig. 1. ejusdem tabulae, plantam magnitudine naturali praebente, distincte dimidiata delineata est.

Species delenda.

Pterigynandrum Boscii Brid. II. p. 750; *Entodon* quidam jam descriptus esse videtur. In Hb. Brideliano non vidimus.

Sectio III. **Pterogonium.** Plantae pleurocarpicae *pusillae tenellae*; caulis *decumbens vage pinnulatus subcompressus*; folia *homomalla cochleariformia, cellulis amoene oblongis, alaribus pulcherrime vesiculaeformibus flavidis*; nervis binis obsoletis, striis flavidis brevissimis plerumque designatis. Theca exserta, minutissima, supramatura declinata. Perist. plerumque simplex.

Patria. Zonam maritimam terrarum calidarum plantae amantes.

Leptohymeniis proximae plantae, inter ea et *Entodontes* pulcherrime intermediae.

1. *Folia acuminata.*

a. *Caules turgescentes.*

62. N. Madagascariensis C. Müll.; *monoica;* caulis ocumbens *turgide teres crassiusculus* densifolius, ramis evibus *acutis*, subincurvis *nitide-viridibus rufescentius;* folia caulina *dense appressa* parum secunda, *oblongata parum acuminata*, cochleariformi-concava, *integerma, vix plicata, margine ubique late revoluto*, nervis nis obsoletis, cellulis oblongis pallidis inanibus, basi ıvidis, alaribus vesiculaeformibus parvis amoene flavis; perich. interna *anguste acuminata longiora integerma;* theca in ped. perbrevi rufo laevi tenuissimo erecta inutissime oblongo-urceolata angustissima fusca, operc. ılique subulato; perist. simplicis d. longiusculi erecti albi.

Leucodon Madagascariensis Brid. II. p. 213.

Patria. Madagascar: Dumont d'Urville.

Ob vestigia explicata primo adspectu a congeneribus ognoscenda et *N. hamatae* habitu proxima.

b. *Caules compressi.*

α. Folia margine revoluto.

†. *Folia breviter acuminata.*

63. N. Boryana C. Müll.; *monoica;* laxe cespitosa regulariter breviter vage ramosa, ramis pallide viridis, dein fuscidulis, parum curvatis, *tenuibus subcompressis;* folia caulina dense imbricata subhomomalla, *anguste lanceolata, breviter acuminata*, profunde concava, ıtegerrima, *margine ubique valde revoluto, subplicata*, ıllulae oblongae, v. ellipticae basi flavidae, alares pauıe infimae majusculae vesiculosae pulcherrime flavidae, ervi brevissimi obsoleti; perich. magis acuminata et *ubdenticulata*, basi pellucida, caviuscula; thecae in ped. erbrevibus *creberrimis* tenuissimis minutissime anguissime ovatae pallidae, deoperculatae ore coarctato urcolatae fuscae, exannulatae, operculis conicis, longe et alde oblique acicularibus leptodermibus; perist. d. ciliaormes longi albidi remoti, rugulosi, linea longitudinali

exarati, obscure articulati, apice introrsum involuti; calyptra minuta albida tenera glabra.

Pterogonium Boryanum Mont. in litt. — *Pterogonium urceolatum* Schw. in Musc. Surinamens. Weigelt.

Patria. Domingo: Hb. Boryan. Surinam: Weigelt; in trunc. *Tamarindi Indicae* pr. Paramáribo, Junio 1844, Kegel. E Cayenne comm. Schwägrichen.

64. **N. leucocytus** C. Müll.; *monoica;* laxe cespitosa, ramis *tenuibus valde curvatis* subhomomallophyllis *sordide luteo-viridibus,* vagis; folia e basi *angustiore ovata obtusiuscula* vel subacuminata, profunde concava, subplicata, margine ubique revoluto integerrimo, cellulis basis, reflectione marginis valde angustatae, *pallide flavidis,* alaribus *inferioribus pallide flavidulis,* superioribus minutissime quadratis obscuris pluribus, nervis distinctioribus; perich. multo minora angustiora parum laxius reticulata, ubique pallida, subdenticulata; theca in ped. perbrevi senectute arcuato erecta, dein nutanti-inclinata minutissime ovalis; dentes angusti.

Pterogonium microcarpum Hmp. in litt.

Patria. Java.

A *N. Boryana* caracteribus cursive impressis differt. Peristom. imperfectum solum vidimus.

65. **N. lineolata** C. Müll.; *monoica? longe prostrata, ramis elongatis parce* breviter dichotomis *sordide viridibus valde homomallophyllis, tenuibus;* folia *late ovata longius acuminata, inaequaliter concava implana,* haud plicata, *margine ad latus alterum valde revoluto, alterum erecto,* cellulis *basi laxioribus;* perich. anguste lanceolata longe acuminata erecta, raro denticulata, inferne laxe pellucide et infima basi flavide reticulata, ubique margine revoluto, *profunde regulariter concava,* interdum plicata; theca in ped. perbrevi purpureo subinclinata, e collo minute anguste subcernuo-oblonga; perist. *N. Boryanae.*

Pterigynandrum lineolatum Duby in Moritzi Verz. d. Zolling. Pfl. p. 130.

Patria. Java, ad lapides fluminis Tjapus: Zollinger No. 1807.

A *N. Boryana* notis laudatis differt. Operculum non vidimus.

66. N. urceolata C. Müll.; *monoica?* prostrata tenella distincte homomallophylla, ramis brevibus *teretibus simplicibus erectis amoene viridibus;* folia dense imbricata erecta coarctata, *ovata obtusiuscula vix acuminata,* profunde concava, integerrima, cellulis tenuissimis; perich. anguste lanceolato-acuminata acuta erecta; theca in ped. perbrevi *cylindracea, urceolata* constricta fusca, operc. conico obliquirostro, dentibus et calyptra *N. Boryanae.*

Pterogonium urceolatum Schw. Suppl. II. I. p. 33. t. 110. — *Pterigynandrum urceolatum* Brid. II. p. 187.

Patria. Insula Tristan d'Acunha: Aubert du Petit Thouars.

A *N. lineolata* caule tenuiore, foliorum forma et theca haud cernua certe differt.

67. N. fuscescens C. Müll.; *monoica; dense prostrata appressa,* ramis laxe et homomalle foliosis *sordide fuscescenti-viridibus, apice parum falcatis brevibus planiusculis;* folia caulina e basi latiore ovata subacuminata obtusiuscula v. subacuminata, profunde concava subplicata integerrima, margine ubique revoluto, e cellulis *minutissimis rhomboideis amoene pellucidis composito,* cellulis alaribus infimis parvulis vesiculosis pallide flavidulis, superioribus illis marginis revoluti simillimis, *cellulis caeteris angustis longioribus;* perich. lanceolato-acuminata acuta, basi tenerrime laxe flavidulo-reticulata; theca in ped. perbrevi erecta, dein subinclinata minuta *oblonga, ubique aequalis,* operc. conico oblique acuminato, calyptra minuta apice scabriuscula.

Pterogonium fuscescens Hsch. in sched.

Patria. Prom. b. spei: Bergius.

N. lineolatae proxima et vestigiis illustratis facillime distinguenda.

68. **N. macrocarpa** C. Müll.; *monoica?* caulis repens foliosus depressus late explanatus, *tomentoso-cespitosus, intense viridis,* pinnatim divisus tenellus pusillus; folia *anguste ovata acuta striata* enervia, marginibus revolutis patulis integerrimis; theca in ped. *perbrevi* laevi minuta oblonga *horizontalis.* †.

Pterogonium macrocarpum Harvey in Hook. Ic. Pl. Rar. t. 24. f. 12. — Lond. Journ. of bot. 1840. p. 12 c. descriptione.

Patria. Nepal.

Perist. imperfectum simplex angustum breve et calyptram immaturam basi laciniatam auctor vidit. Nomen triviale maxime ineptum!

††. *Folia longe acuminata.*

69. **N. hamata** C. Müll.; *monoica;* vage ramosa laxe cespitosa *crassiuscula, vel ramis junioribus tenuibus subhomomallophyllis,* flexuosis, e viridi sublutescens; folia anguste *longe lanceolato-acuminata,* profunde concava, margine ubique valde revoluto integerrimo, cellulis alaribus infimis pulcherrime flavidis majusculis, vesiculosis, superioribus minutissimis quadratis incrassatis obscuris pluribus; perich. multo teneriora, intima minora, margine minus reflexa, subdenticulata; theca in ped. *longiusculo* purpureo *semper erecta turgide ovalis majuscula* fusca; perist. d. *late lanceolati* remoti, dense articulati, pallidi laeviusculi *breves.*

Pterogonium hamatum Hmp. in litt.

Patria. Java, ad arbor. sylvestres.

A *N. Boryana* ob vestigia laudata longe distincta. Thecam deoperculatam tantum habemus.

β. Folia margine erecto.

70. **N. pulchella** C. Müll.; *monoica; tenuissima tenerrima intertexta exilissima, parce divisa, pallide viridis,* homomallophylla; folia caulina *minuta, laxissime patentia sparsa, angustissime* lanceolato-acuminata, interdum parum flexuosa et acumine tenui reflexa, *caviuscula, margine ubique erecto, basi parum introrsum constricta,*

integerrimo, cellulis paucis ellipticis aequalibus, alaribus *paucissimis quadratis pellucidis v. obscuris, haud incrassatis*, minutis, infimis flavidis *subobsoletis;* perich. majora longius acuminata; theca in ped. *brevissimo* apice incrassato *minutissime ovalis* recta, dein inclinata, pallide aurantiaco-fusca, operc. conico oblique rostrato, dentibus humore *valde reflexis, lanceolato-subulatis, dense approximatis et dense trabeculatis albidis laevissimis*, linea media exaratis.

Pterogonium pulchellum Hook. Musc. Exot. t. 4. — Schwägr. Suppl. III. I. 1. t. 210. — *Pterigynandrum pulchellum* Brid. II. p. 179.

Patria. In altioribus umbrosis montis Quindiu Novo-Granatensis, prope el Moral alt. 1070 hexapodum: Humboldt et Bonpland. Brasilia, pr. Rio Janeiro: Beske.

Specimina nostra Brasiliensia cum iconibus auctorum et descriptione convenire videntur. Schwägrichen solus cellulas folii elongatas et basi pellucidas illustravit, dum nostrae ellipticae et basi flavidae minutae quadratae obscurae. An propria species? Exiguitate primo momento discernibilis.

2. *Folia obtusa.*

71. **N. vulpina** Mont. (Ann. d. sc. nat. Ser. II. T. II. p. 204. t. 4.); *monoica?* decumbens vage vel subpinnatim ramosa, ramis ascendentibus subsimplicibus apice obtuso subgemmaeformi incurvis, sordidissime viridibus; folia caulina laxe disposita patula, subsecunda, *cymbiformi-oblongo-ligulata obtusissima, vix acuminata*, margine ubique parum revoluto integerrimo, cellulis brevibus pellucidis linearibus submollibus, alaribus superioribus paucis *laxiuscule quadratis pellucidis* parvulis, inferioribus *magnis pallide flavidulis;* perich. longiora ovato-acuminata erecta; theca in ped. longiusculo purpureo erecta oblongo-cylindrica angusta fusca, operc. conico curvirostro; perist. *duplicis* d. dense approximati latiuscule lanceolati, tenues plani dense trabeculati pallidi laeves, cilia aequilonga tenuia dense articulata fuscidula.

Patria. Guiana: Leprieur.

E distinctissimis.

Sectio IV. **Leptohymenium** auct. non Schw. Plantae pleurocarpicae *filiformes tenerae, ramis tenuibus, nec julaceis, nec compressis, sparsifoliis, vage ramosae.* Folia ovata acuminata concava, e cellulis *linearibus* composita. Theca exserta.

Patria. Per totum orbem terrarum.

a. *Folia uninervia.*

α. Theca globosa.

72. **N. procumbens** C. Müll.; dioica, latissime cespitosa procumbens v. prostrata *sordide lutescens;* caulis longiusculus pluries in ramos longiores breviter pinnate ramulosos divisus, *plumose foliosus, tenuiusculus rigidiusculus, ramulis siccitate curvatis;* folia caulina *conferta,* humore *erecto-patentia, late lanceolata longiuscule acuminata,* carinato-concava, *margine usque fere ad apicem revoluto, apice denticulato, nervo valido excurrente, flavido-viridi,* cellulis *minutis oblongis subconflatis tenerrime punctulatis lutescentibus,* alaribus *multis minutis rotundatis;* perich. angustius lanceolata *longius tenuius acuminata,* integerrima, margine erecto, nervo *excurrente sensim dissoluto* tenuiusculo, cellulis *ubique elongatis angustis pellucidis laevibus;* theca in ped. *vix exserto scabro turgide globosa* fusca, annulo operculo adhaerente, operc. conico oblique acute acuminato concolori; perist. d. ext. latiuscule lanceolato-acuminati conniventes albidi dense trabeculati, linea longitudinali exarati, *inferne laeves,* superne intus trabeculis maxime appendiculato-prominentibus; *int. breviores albidi capillares fugacissimi;* calyptra *glabra,* apice scaberula dimidiata.

Patria. Pone Bombay Indiae orientalis lectum copiosissime comm. Kegel ex horto Dom. Van Houtte.

Species excellentissima atque pulchella, *N. Sieboldi* proxima, caracteribus tamen explicatis longe refugiens.

73. N. Sieboldi C. Müll.; *dioica;* caulis prostratus *tenellus filiformis* vage pinnatim ramosissimus *microphyllus*, ramulis *tenerrimis attenuatis*, viridibus; folia sparsa *patentia* lanceolato-acuminata, carinata, margine ubique erecto, *crenulato*, nervo *tenui infra apicem evanido pallido*, cellulis *subrhomboidalibus laxiuscule quadratis, ob papillas elevatas valde opacis carnosulis viridissimis*, alaribus *vix ullis;* perich. teneriora brevius nervosa, basi oblongo-areolata; theca in ped. carnosulo laevi erecto *breviusculo* erecta *minute* globosa, annulata, operc. conico oblique acuminato, calyptra majuscula ventricose cucullata, apice asperula, *basi pilosa;* perist. simplicis (?) dentes aequidistantes fragiles, *e basi usque ad apicem ad trabeculas appendiculati.*

Haplohymenium Sieboldi Dz. et Molkb. Ann. d. sc. nat. 1844. p. 310. — Musc. Archip. Ind. p. 127. t. 40.

Patria. Japonia: a Siebold.

N. procumbenti multis notis affinis, sed caracteribus expositis toto coelo distans. An peristomium revera *simplex*? Peristomium observare nobis non licuit.

β. Theca oblonga.

74. N. striata Schw. (Suppl. III. I. 2. tab. 246.); *dioica;* intertexta prostrata *filiformis nitida*, longe flexuosa, *ramis attenuatis viridibus* inordinate pinnatim dispositis; folia caulina conferta *appressa, humore subplumose erecta, longe lanceolato-acuminata stricta integerrima concava, margine usque ad medium et ultra valde revoluto utrinque veluti bistriata,* laevia, nervo *valido* ante apicem evanido, cellulis breviuscule anguste linearibus pellucidis virescentibus mollibus, alaribus parvulis *laxe quadratis intus granulosis;* perich. longiora robustiora, laxius longius reticulata, pallidiora; theca in ped. breviusculo purpureo laevi erecta *cylindraceo-oblonga* purpurea, operc. *convexo mucronato;* perist. d. ext. angustissime lanceolato-acuminati fusci rugulosi, parum trabeculati, linea longitudinali obsoleta exarati, int. ae-

quilongi capillares, in membrana brevissima fusciduli subcarinati.

Leptohymenium striatum A. Br. in sched. — *Isothecium striatum* Spruce in Musc. Pyr. No. 93. Ann. and Mag. of Nat. Hist. 1849. — *Anomodon mutabilis* Mont. Hist. d. Il. Canar. p. 17. — *A. striatus* Hüb. Musc. p. 559. — *Maschalocarpus striatus* Spreng. Syst. Veget. IV. I. p. 158. — *Pterigynandrum striatum* Dub. Bot. Gall. p. 563. — *Pt. mutabile* Brid. Mant. Musc. p. 129. et Br. univ. II. p. 190. — *Pterogonium striatum* Schw. Suppl. I. I. p. 103. t. 27. — *Leskea bulbifera* Fröhl. in Brid. Sp. Musc. II. p. 61. — *Hypnum mutabile* Brid. Sp. Musc. II. p. 156. — *Grimmia mutabilis* et *plicata* Opitz, fide Bridelii.

Patria. In regione subalpina et alpina per totam Europam, excl. Scandinavia, sed rara. — *Aestate et hyeme.*

75. N. pygmaea Dz. et Molkb. (Ann. sc. nat. 1844. p. 313.); caulis repens filiformis vage ramulosus, ramuli simpliciusculi ascendentes exiles; folia laxe imbricata erecto-patentia *ovato-lanceolata subulato-acuminata serrulata*, nervo ad medium folii circiter evanido; theca erecta oblongo-cylindrica, operc. convexo oblique rostrato. †.

Patria. Borneo.

76. N. Grateloupii C. Müll.; *monoica;* exilis; caulis filiformis repens uncialis, ramis irregularibus brevibus vagis ascendentibus apice attenuatis recurvis; folia caulina viridia *anguste longiuscule ovato-lanceolata* acuminata, *subsecunda*, carinata, *subdenticulata*, *nervo tenuissimo ultra medium evanido*, cellulis *oblongo-ellipticis* basi margine subquadratis, *margine erecto;* perich. enervia magis acuminata recta; theca in ped. *perbrevi badio* laevi dextrorsum tortili erecta, *ovato-elliptica*, ore tantillum constricta, operc. e convexo-conico oblique mucronato, mucrone obtusiusculo thecam dimidiam vix aequante concolori; perist. duplicis d. ext. lanceolati linea media notati, basi opaci, superne hyalini laxe articulati, cellulis parallelogrammis biseriatis, int. ciliaeformes subaequilongi, cellulis supra medium uniseriatis.

Anomodon Grateloupii Mont. Ann. d. sc. nat. 1845. p. 100. t. 5. f. 3.

Patria. Insula Bourbonis, in cortice arborum: Hb. Grateloup.

Peristomium nobis haud visum. Notis explicatis primo momento a *N. striata* diversa.

77. N. laxa C. Müll.; *monoica;* caulis repens minutus parce ramosus, ramis brevibus vagis; folia *laxe subdisticha* subsecunda *elliptico-lanceolata* seminervia concava, minute serrulata; perich. minora erecta acuminata seminervia; theca in ped. brevissimo laevi flexuoso basi parce hirto *suberecta* ovata, obscure annulata, operc. brevirostro, calyptra *pilosiuscula;* perist. internum rudimentarium. †.

Pterogonium laxum Wils. Lond. Journ. of bot. 1848. p. 276. t. 10. E.

Patria. Ad truncos arborum vetustos Chinae ad Chusan: Anderson.

A *N. Grateloupii* proxima caracteribus expositis longe distans.

78. N. gracillima Tayl. (Lond. Journ. of bot. 1848. p. 192.); *monoica;* caulis ascendens subuncialis implexus vage subpinnatim ramosus, ramis gracillimis, apice parum incurvis, viridibus v. stramineis; folia erecto-patentia, sicca arcte appressa, late ovata longius apiculata, *nervo ante apicem evanido, integerrima, basi margine reflexa;* perichaetia pallida lucida, ad basin ramorum oriunda; theca erecta inaequalis cylindrica, ore contracta; perist. d. ext. pallidi, basi linea longitudinali opaca notati, int. pallidi setacei. †.

Patria. Ad arbores m. Pichinchae Andium Quitensium: W. Jameson, Dec. 1846.

Habitus *N. filiformis,* sed notis cursive impressis longe distincta.

79. N. pulvinata C. Müll.; *monoica;* procumbens gracillima dense pulvinata intricata sordide ferruginea, ramulis teneris tenerrimis apice vix curvatis, *haud unci-*

natis, viridissimis v. lutescentibus valde divisa; folia caulina *appressa*, humore erecto-patula, parva, *haud secunda*, *oblonga obtuse-lanceolata*, carinato-concava, integerrima, nervo tenerrimo ad medium evanido, margine erecto, cellulis *grosse ellipticis*, utriculo primordiali laterali repletis, subpellucidis, submollibus; perich. multo majora vaginantia, elongate areolata, *lutea*, *robusta*, *obtuse acuminata*; theca in ped. *brevi flavido* laevi carnosulo erecta *ovalis brevicolla*; perist. d. ext. *tenues albidi*, *dense trabeculati laeves* linea longitudinali vix exarati, *breviter anguste* lanceolati, int. in membrana *brevissima* flavida ciliaeformes carinati articulati flavidi laeves solidi; operculum *obtuse conicum*.

Leskea pulvinata Wahlenb. Fl. Lapp. 1812. p. 369. — Brid. II. p. 316. — *L. subenervis* Schw. Suppl. I. II. 1816. p. 176. t. 85! — Brid. II. p. 307.

Patria. Lapponia inferior, locis subhumidis, ad populorum radices et truncos, prope Kemi passim copiose: Wahlenberg. In Tirolis australis montibus legit Lehmann. In Anglia ad truncos salicum prope York legit Spruce!

Hypno polycarpo primo adspectu haud dissimilis, caracteribus autem explicatis toto coelo distans, *Neck. striatae* affinior et species distinctissima atque rarissima.

Non satis nota.

1. **Pterogonium perpusillum** De Not. (Spicil. p. 12 et Syllab. Musc. p. 84.); dioicum; late cespitulosum; caulis repens vage ramosus gracillimus filiformis viridissimus, ramis simplicibus directione variis; folia caulina imbricata, madore patentissima, anguste lanceolato-acuminata acutiuscula, carinata, subintegerrima, nervo brevissimo obsoleto, margine ubique erecto, cellulis minutiusculis ellipticis dorso subpapillosis virescentibus, alaribus minute quadratis intus granulosis obscuris; perich. convoluto-vaginantia, interiora oblongo-lanceolata acuminata; theca in ped. brevi oblonga erecta, materitate striata, operc. conoideo obtusiusculo breviori; perist. simplex.

P.? subenervium Spruce in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 111.

Patria. Ad truncos *Oleae sylvestris* in montanis Sardiniae australis inter Villacidro et Domus novas: De Notaris 1835. In Pyrenaeis pr. Bagnères-de-Bigorre et Pau sterile leg. Spruce.

Habitus *Fabroniae pusillae* quacum crescit, eo modo ut nudo oculo cum ea commutari possit, praeter vero peristomium etiam foliis compagis firmioris, integris haud punctanter dignoscitur. *Hypno parvulo* (Clasmatodonti Wils.) haud dissimile. An *Hypnum*, an *Neckera*, ob peristomium nobis haud visum dijudicare nequivimus.

γ. Theca longe cylindrica.

80. N. **Eriodon** C. Müll.; *monoica;* late caespitosa, pallide viridis, prostrata, vage pinnatim divisa, *compressiuscula*, tenera, ramulis curvulis laxifoliis; folia *laxissime sparsa, patentissima, late cordato-ovata, breviter acuminata, carinato-concava, tenuiter membranacea, pallidissima*, margine *infima basi vix revoluto, ubique tenuissime serrulato*, nervo tenui ultra medium evanido, cellulis angustissime linearibus, alaribus ad basin vix impressam vix ullis laxiusculis; perich. vaginantia angustiora magis acuminata enervia pellucidius et laxius reticulata; theca in ped. longiusculo tenui laevi purpureo *suberecta longate anguste cylindrica arcuata*, fusca, exannulata, operculo *turgide conico longissime recte subulato;* perist. int. ext. *lineari-lanceolati capillari-attenuati longissimi*, int. in membrana *elata carinato-plicata* reticulata tenera *longissimi, lineari lanceolati capillari-attenuati carinati* solidi, rugulosi lutei.

Entopogon cylindricus C. Müll. in schedulis 1844. — *Eriodon anastomus* Mont. Ann. d. sc. nat. 1845. p. 98! Hist. de Chile. Bot. Crypt. t. 5. f. 2.

Patria. Ad cortices arborum Chiles australioris, in Valdivia, Chiloë: C. Gay, Philippi.

Species peristomio interno subbarbuloideo memorabilis solitaria, ad *Neckeras* tamen certe pertinens et vestigiis supra editis facillime cognoscenda.

b. *Folia binervia.*

α. Cellulae alares quadratae.

†. *Laevia.*

81. **N. aurea** C. Müll.; *monoica;* procumbens, *filiformis* inaequaliter pinnata *tenella* lutescens *sericea* compressiuscula; folia sicca dense imbricata appressa, *madefacta ubique erecto-patentia, angustissime lanceolata, longe acuminata acuta*, integerrima caviuscula, nervis brevissimis, margine erecto, cellulis angustissime linearibus *pallidissimis*, alaribus laxe quadratis pellucidis granulosis paucis subventricosis; perich. *caulinis simillima*, laxius areolata, erecta, pauca; theca *minute ovalis, ore aequalis*, cum pedunculo elongato *intense rubra* exannulata, operc. minute conico oblique acuminato; perist. d. breviter lanceolati carnosuli pallide rubiginosi tenerrime rugulosi, linea longitudinali vix conspicua, integri, latere pallidius parenchymatosi tenuissime trabeculati, cilia brevissima flavida tenuia.

Leskea aurea Harv. Lond. Journ. of bot. II. 1840. p. 16. — *Pterigynandrum aureum* Brid. II. p. 180. — *Pterogonium aureum* Hook. Musc. Exot. t. 147.

Patria. Nepal Indiae: D. Gardner.

Peristomium *N. Abyssinicae;* habitus tenellus.

82. **N. longisetacea** C. Müll.; *monoica; tenuissime* filiformis repens flexuosa, ramis breviusculis *subteretibus* compressiusculis sordide viridibus *magis* ascendentibus *rigidis;* folia caulina *breviora, latius lanceolata, brevius acuminata*, magis viridia, cellulis alaribus magis planis; pedunculus *longissimus*, purpureus, theca *cylindracea longiuscula angusta, fuscata* exannulata, operc. conico oblique acuminato; perist. d. *lanceolato-subulati, distincte articulate trabeculati*, pallide rubiginosi, *apice pallidiores, distinctius rugulosi*, linea media vix conspicua, latere *basi tantum latius* parenchymatosi pallidiores, cilia in membrana distinctius emersa *tenuissime subulata perfecta valde evoluta nodosiuscula aurantiaca rugulosa integra plana.*

Patria. India orientalis, Bombay: Kegel communicavit.

Notis, litteris cursivis expressis, a *N. aurea* proxima differt.

83. **N. repens** Schw. (Suppl. III. I. 2. c. perist. delineato in t. 246.); *dioica;* longe repens, ramis brevibus *attenuatis subjulaceis* pinnatus, intertextus plus minus compacte cespitosus, *pallide viridis v. lutescens sericeus;* folia caulina dense imbricata, humore erecto-patentia, anguste lanceolato-acuminata acuta integerrima, margine *ubique parum revoluto,* cymbiformi-concava, cellulis brevibus anguste linearibus, *basi aureis,* alaribus quadratis pellucidis paucis *inferne aureis,* nervis obsoletis brevissimis; perich. vaginantia longius acuminata teneriora; theca in ped. elongato purpureo *minute elliptica* microstoma, *leptodermis pallide fuscidula,* exannulata, operc. breviter obliquiuscule rostrato rubente; perist. *N. longisetaceae,* cilia *laevia carinata dentes aequantia, in membrana haud emersa.*

Isothecium repens Spruce in Ann. and. Mag. of Nat. Hist. 1849. Musc. Pyren. No. 92. — *Leptohymenium repens* Hmp. Linn. XX. p. 83. — *Anomodon repens* Hüb. Musc. p. 558. — *Neckera sericea* Fröhl. in Brid. Sp. Musc. II. p. 40. — *Maschalocarpus repens* Spr. Syst. Veget. IV. I. p. 159. — *Pterigynandrum repens* Brid. II. p. 182. — *Pterogonium repens* Schw. Suppl. I. 1. p. 100. t. 27. — *Bruchia repens* Hsch. in Regensb. bot. Zeit. 1825. 2. Beilage p. 10.

Patria. Ad truncos arborum, praesertim betularum et abietum, in tectis lignosis atque stramineis, ad sepimenta etc., rarius in terra, hic illic per regiones montosas praesertim alpestres Germaniae, Helvetiae, Galliae et Norvegiae; in castaneis Pyrenaeorum; in America septentrionali ex Sullivant haud rara. — *Ex auctumno usque ad Junium.*

Pl. mascula floribus turgide gemmaceis creberrimis veluti nodosiuscule pinnata. — *Hypno polyantho* similis et a *N. aurea* proxima notis illustratis facile distinguitur; cave tamen, ne species ob cellulas alares flavidas ad *Pterogonia* revoces.

84. **N. dentata** C. Müll.; *monoica;* prostrata *arctissime compacta et intertexta,* repens, ramis *tenuibus* brevibus *multis dense foliosis* pinnata, luride viridis; folia caulina erecto-patentia lanceolato-acuminata integerrima obsoletinervia, cellulis angustis, alaribus laxe quadratis pellucidis; perich. longius acuminata vaginantia, externa minora; theca in ped. flexuoso longo ferrugineo-fusco rigido erecta, brevis *subturgide* oblongo-ovalis, ore constricta, ferrugineo-badia, operc. minute conico obliquiusculo, annulo nullo; perist. *N. Abyssinicae.* †.

Leptohymenium dentatum Schw. Sppl. IV. t. 322. — *Pleuropus dentatus* Griffith l. c.

Patria. Prom. b. spei.

Perist. internum auctor non descripsit et praetervidit; ex analogia *N. aureae* et *longisetaceae* proximarum specierum haud deerit.

85. **N. brachyclada** C. Müll.; *monoica;* tenella pusilla compacte cespitosa ascendens, ramis *brevibus rigidissimis* tenuibus, *subjulaceis acutiusculis parum curvatis sordide fuscescentibus* subpinnata; folia caulina dense imbricata, humore patentia, anguste lanceolato-acuminata, profunde concava, *margine usque ad acumen distincte reflexo* integerrimo, cellulis brevibus anguste linearibus, basi flavidis, alaribus paucis minute quadratis pellucidis, inferne flavescentibus, nervis vix ullis maxime brevibus flavidis; perich. latiora, longius acuminata, cellulis longioribus, basi fuscescentibus; theca in ped. longiusculo rigido purpureo, superne *in collum angustissimum incrassato angustissime cylindracea brevis,* erecta exannulata, pallida dein fusca, operc. obliquiuscule acuminato; perist. minutum: dentes breves angusti lanceolati, linea media vix ulla exarati, pallide aurantiaci, latere pallidiores, *cilia vix breviora tenuissima rigidissima stricta subsimplicia intensius colorata.*

Pterogonium ascendens Schw. Suppl. III. I. 2. t. 243 c. perist. simpl. false observato. — *Pterigynandrum brachycladon* Brid. II. p. 185. excl. *Pterogon. decumbente* Schw. — *Leptohymenium ascendens* Hmp. in litt.

Patria. America sept., Massachusett: Torrey, 320. In Pensylvania, ad trunc. putridos primus legit ühlenberg.

Flores masc. turgidi.

86. **N. trichoclada** C. Müll.; *monoica?* prostrata plexa vage ramosa, ramis *tenuissimis capillaribus subcurvis* pallide viridibus; folia caulina laxe imbricata ecto-patentia, *e basi cordata amplexante lanceolata uminata subdenticulata* enervia (?); perichaetia ramis tiora, foliis dense appressis, internis elongate acumina-; pedunculi sparsi gracillimi laeves; theca erecta ovata; rist. dentes brevissimi truncati. †.

Pterogonium trichocladum Tayl. Lond. Journ. of bot. 1847. 336.

Patria. Monte Pichincha Andium Quitensium: W. meson, Nov. 1846.

Ex animadv. auctoris rami illis *Hypni Halleri* Hdw. mulantur, sed tenuiores et folia (basi flavida et revera ervia?) haud recurva. Peristomium ob thecas deoperlatas incomplete observatum.

††. *Papillosa.*

87. **N. filiformis** C. Müll.; *dioica;* dense cespitosa, mis *tenuissime filiformibus* arcuato-curvatis pallide ridibus longis prostratis, rigidiusculis; folia caulina apessa, ovato-lanceolata acuminata, margine usque fere apicem paulisper revoluto, tenerrime erose denticulato, llulis densissimis angustissimis brevibus vix conspicuis, *papillas teneras scaberrimis*, basi aureis, alaribus *inassate quadratis minutis paucis*, nervis brevibus; periaetia turgide cylindrica, foliis vaginatis tenerioribus gius acuminatis, laevibus; theca in ped. elongato purreo gracillimo angustissime cylindrica longiuscula pala, microstoma, annulata, operc. oblique rostrato; perist. ntes *ciliaeformes breves albidi irregulares nodosiusculi*, sura notati, cilia *tenerrima fugacissima* paullo breora.

Leptohymenium filiforme Hüb. Musc p. 552. — *Pterogonium caespitosum* Engl. Bot. t. 2526. — *Pt. filiforme* Schw. Suppl. I. 1. p. 100. — *Maschalanthus filiformis* Schultz. Fl. Starg. p. 356. — *Grimmia filiformis* Web. et Mohr Taschb. p. 150. — *Neckera decipiens* eor. l. c. p. 241. — *Maschalocarpus filiformis* Spreng. Einleit. p. 297. — *Leskea cylindrica* Brid. Sp. Musc. p. 60. — *Pterigynandrum filiforme* Hdw. Musc. Fr. IV. t. 7. — *Hypnum filiforme* Timm. Prodr. Fl. Megap. n. 817. — *Encalypta filiformis* Roth. Tent. Fl. Germ. III. p. 155.

Patria. Per totam Europam, praesertim montosam et alpestrem, ad truncos quercus, fagi, salicis et aliarum arborum, praeterea in saxis, ubi cespites tenuiter effusos efformat, in locis umbrosis. — *Vere.*

Species an huc pertinens?

1. **Leptohymenium elajochlaron** Łobarz. (in Haidinger's Naturwiss. Abh. I. p. 61.); cespites orbiculato-pulvinulati, radiantes applanati compacti duri, profunde olivaceo-viridantes v. olivaceo-fulvi, *luridi* homomalle intricati; caulis 1—2 uncialis prostratus filiformis pinnatim vel fasciculatim ramosus, ramis *crassiusculis* teretibus abbreviatis *obtusis* subfalcato-flexuosis *arcuatim incurvis*, apice inflexis; folia caulina undique v. homomalle dense, *humore tumide et quasi bullate imbricata, obovata obtuse oblique* apiculata, crassiuscula, fornicate concava, *echinate papillosa, apice erose denticulata,* nervo nullo, v. basilari, v. ultramedio, v. debili gemello, cellulis linearibus *incrassatis* densis, basi laxioribus, margine *explanato v. involutaceo.* †.

Patria. Halicia, in Beskidorum orientalium plaga alpestri sylvigera, in ditione amplexa scaturiginibus fluminum Stryj et Laturcza; ibidem in summo cacumine alpis Huśla, elevatione 5000 pedum, ubi ad saxa arenosa denudata aridissima societate *Umbilicariae deustae* et *Parmeliae ventosae* cespites atros profert et frequenter degit; in rupestribus humidis vallis Tatricae Koszielisko: de Łobarzewski. Ex Helvetia nomine *Hypni alpestris* quondam Schleicher fide auctoris edidit.

A *Leptoh. filiformi* ex auctore simillimo caracteribus cursive impressis differt.

β. Cellulae alares vesiculaeformes.

88. **N. Clastobryum** C. Müll.; *monoica; pusilla tenella, purpureo-fusca nitidula fragilis ascendens*, ramis brevibus subcurvatis patulifoliis superne subpinnata; folia caulina sparsa erecto-patentia, minuta, *anguste oblonga, profunde concava, acumine plano longiusculo dentato terminata*, margine inferne vel ubique fere paulisper revoluto *veluti incrassato*, cellulis oblongis intense fuscis, alaribus superioribus nullis, inferioribus vesiculaeformibus turgidis parvulis *brunneo-fuscis* constricto-reflexis; perich. ext. ovata acuta, int. duplo longiora lanceolata acuminata v. cuspidata; theca in ped. longiusculo tortuoso atrofusco erecta oblonga parva, ore parum constricta, operc. oblique rostrato; perist. *duplicis* d. *N. pulchellae*, cilia in membrana parum emersa breviora, tenera albida irregularia rugulosa.

Clastobryum Indicum Dz. et Molkb. Musc. Archip. Ind. p. 43. tab. 16. — *Astrodontium Indicum* eor. Ann. d. sc. nat. 1844. II. p. 299.

Patria. Borneo, in arborum cortice: Korthals; Java, in terra humosa summi montis Gédé: Zippelius.

Species pulcherrima et colore primo adspectu propria solitaria.

Sectio V. **Leucodon** Schwägr. Plantae pleurocarpicae et cladocarpicae robustae, caule plus minus robusto et *plus minus tereti densifolio* dichotome v. pinnatim ramoso, foliis ovatis acuminatis, basi exauriculatis, plerumque secundis et plicatis, cellulis *pro more rotundatis*. Theca exserta et immersa.

Patria. Per totum orbem terrarum, sed terras calidas praeferentes.

Cryphaeae generis *Pilotrichi* sectio analoga.

Subsectio I. **Pterigynandrum.** Caulis *siccitate perfecte julaceus*, perich. longius exsertis, foliis ovate v. lanceolate acuminatis, saepius cochleariformibus, cellulis oblongis v. linearibus elongatis.

Leptohymenio affines cum *Leucodontibus* nostris caetera optime conjungentes plantae.

1. *Folia enervia.*

89. **N. pseudalopecura** C. Müll.: *dioica*; caulis primarius repens, rami teneri teretes *julacei*, breviter ramosi. folia caulina densissime imbricata. *humore laxiuscula*, late ovata breviter acuminata, concava, integerrima, *parum et laevius plicata*, enervia. margine *prorsus plano*, cellulis mediis laminae pallidis recte seriatis, marginea oblique seriatis obscurioribus. basi fuscis; perichaetia exserta pallida. foliis lanceolato-acuminatis convolutis elongatis anguste reticulatis: theca *longius exserta*, *majuscula subrotundo-ovalis microstoma*, exannulata, calyptra laevi, operculo oblique rostrato: perist. simplici d. ext. breviter lanceolati indivisi, sed linea longitudinali obscura notati, valde rugulosi.

Leucodon julaceus Sulliv. Musc. Allegh. No. 57. — *Leuc. alopecurus* auct. mult. non Brid.! — *Pterigynandrum julaceum* Beauv. Mus., *Pr.* IV. p. 51. t. 20. — Brid. II. p. 191. — *Pterogonium julaceum* Schw. Suppl. I. I. p. 109. — *Hypnum julaceum* L. Sp. Pl. p. 1596. — *H.* julaceum perichaetio setas paene aequante. Dill. Musc. p. 321. t. 41. f. 56: ic. perbona!

Patria. Per totam Americam septentrionalem, arborea.

Notis cursive impressis a *N. brachypode* affini saepe commutata differt.

90. **N. assimilis** C. Müll.; *dioica*; *N. pseudalopecurae* simillima, sed folia cryphaeacea *margine ubique distincte erecto*, *minime plicata*; theca in ped. *longiuscule exserto* elliptica microstoma.

Patria. Prom. b. spei, Grootvaterbosch prope Zwellendam: Pappe; in truncis *Eucleae undulatae* sylvarum prope Adoi (District. Uitenhagen), in edito tertio, Augusto: Ecklon.

Thecam supramaturam vetustam et juniorem tantum vidimus.

91. **N. implexa** C. Müll.; *dioica; N. suborthostichae* simillima, maxime compacta, sed *rami distincte teretes obtusiuscule acuti* glauco-virides, inferne pallide ochracei; folia caulina *dense julaceo-imbricata*, splendentia, late oblongo-lanceolata *obtusiuscula*, *in mucronem acutatum producta*, *haud pilifera*, *profunde plicata*, margine vix revoluto; perich. enervia, caulinis latiora, vaginantia, apice denticulata; theca in ped. brevi rufo laevi e cespite vix emerso *distincte ovata* submacrostoma, exannulata, operc. conico acuminato recto mucronato; perist. simplex internum *irregulare*, e dentibus valde inaequalibus laevibus albidis medio perforatis sinuatis in membrana brevi positis compositum.

Leucodon (*Pycnoleucodon*) *Kunzeanus* C. Müll. Linn. 1844. p. 697. — *L. hexastichus* Mont. Ann. d. sc. nat. 1845. p. 101. — *L. implexus* Kze. in Pöpp. Coll. Pl. Chil. III. No. 274. (51.).

Patria. Chile australis ad Antuco: Pöppig, C. Gay, Philippi.

a. *Folia uninervia.*

α. Theca breviter exserta.

92. **N. Ohioensis** C. Müll.; *monoica;* caulis primarius repens; rami erecti tenelli subtenues julacei parce breviter divisi sublutescentes; folia caulina squarrosulo-julaceo-imbricata, humore horizontalia, perfecte late ovata, breviter acuminata, concava, integerrima, *haud plicata*, *nervo valido ante apicem evanido*, margine infra apicem latiuscule revoluto, cellulis *ubique aequalibus rotundatis;* perichaetia *minuta* exserta, foliis lanceolato-acuminatis convolutis pallidis elongate pellucide reticulatis; theca *parum exserta minute ovalis* microstoma, exannulata, calyptra longa *pilosa*, operc. *oblique conico;* perist. simplicis *elongate anguste lanceolato-acuminati albidi laeves*, linea longitudinali distincta exarati.

Leptodon Ohioense Sulliv. Musc. Allegh. No. 89.

Patria. America septentrionalis, circa urbem Columbus in Ohione, rara.

Leptohymenia affinia cum *Leucodontis* sectionibus caeteris optime conjungentes plantae.

a. *Folia enervia.*

89. **N. pseudalopecura** C. Müll.; *dioica;* caulis primarius repens, rami *tenelli teretes julacei*, breviter divisi; folia caulina densissime imbricata, *humore horizontalia*, late ovata breviter acuminata, concava, integerrima, *parum et laevius plicata*, enervia, margine *parum revoluto*, cellulis medio laminae pallidis recte seriatis, ad margines oblique seriatis obscurioribus, basi fuscis; perichaetia exserta pallida, foliis lanceolato-acuminatis convolutis elongate anguste reticulatis; theca *longius exserta, majuscule subrotundo-ovalis microstoma*, exannulata, calyptra laevi, operculo oblique rostrato; perist. simplicis d. ext. breviter lanceolati indivisi, sed linea longitudinali obscura notati, *valde rugulosi.*

Leucodon julaceus Sulliv. Musc. Allegh. No. 87. — *Leuc. alopecurus* auct. mult. non Brid.! — *Pterigynandrum julaceum* Hdw. Musc. Fr. IV. p. 51. t. 20. — Brid. II. p. 181. — *Pterogonium julaceum* Schw. Suppl. I. I. p. 100. — *Hypnum julaceum* L. Sp. Pl. p. 1596. — H. julaceum perichaetio setas paene aequante. Dill. Musc. p. 321. t. 41. f. 56; ic. perbona!

Patria. Per totam Americam septentrionalem, arborea.

Notis cursive impressis a *N. brachypode* affini saepe commutata differt.

90. **N. assimilis** C. Müll.; *dioica; N. pseudalopecurae* simillima, sed folia cryphaeacea *margine ubique distincte erecto, minime plicata;* theca in ped. *longiuscule exserto* elliptica microstoma.

Patria. Prom. b. spei, Grootvaterbosch prope Zwellendam: Pappe; in truncis *Eucleae undulatae* sylvarum prope Adoi (District. Uitenhagen), in edito tertio, Augusto: Ecklon.

Thecam supramaturam vetustam et juniorem tantum vidimus.

91. **N. implexa** C. Müll.; *dioica; N. suborthostichae* simillima, maxime compacta, sed *rami distincte teretes obtusiuscule acuti* glauco-virides, inferne pallide ochracei; folia caulina *dense julaceo-imbricata*, splendentia, late oblongo-lanceolata *obtusiuscula, in mucronem acutatum producta, haud pilifera, profunde plicata*, margine vix revoluto; perich. enervia, caulinis latiora, vaginantia, apice denticulata; theca in ped. brevi rufo laevi e cespite vix emerso *distincte ovata* submacrostoma, exannulata, operc. conico acuminato recto mucronato; perist. simplex internum *irregulare*, e dentibus valde inaequalibus laevibus albidis medio perforatis sinuatis in membrana brevi positis compositum.

Leucodon (*Pycnoleucodon*) *Kunzeanus* C. Müll. Linn. 1844. p. 607. — *L. hexastichus* Mont. Ann. d. sc. nat. 1845. p. 101. — *L. implexus* Kze. in Pöpp. Coll. Pl. Chil. III. No. 274. (51.).

Patria. Chile australis ad Antuco: Pöppig, C. Gay, Philippi.

a. *Folia uninervia.*

α. Theca breviter exserta.

92. **N. Ohioensis** C. Müll.; *monoica;* caulis primarius repens; rami erecti tenelli subtenues julacei parce breviter divisi sublutescentes; folia caulina squarrosulo-julaceo-imbricata, humore horizontalia, perfecte late ovata, breviter acuminata, concava, integerrima, *haud plicata, nervo valido ante apicem evanido*, margine infra apicem latiuscule revoluto, cellulis *ubique aequalibus rotundatis;* perichaetia *minuta* exserta, foliis lanceolato-acuminatis convolutis pallidis elongate pellucide reticulatis; theca *parum exserta minute ovalis* microstoma, exannulata, calyptra longa *pilosa*, operc. *oblique conico;* perist. simplicis *elongate anguste lanceolato-acuminati albidi laeves*, linea longitudinali distincta exarati.

Leptodon Ohioense Sulliv. Musc. Allegh. No. 89.

Patria. America septentrionalis, circa urbem Columbus in Ohione, rara.

A *N. pseudalopecura* proxima statura multo teneriore et caracteribus caeteris designatis differt.

93. **N. producta** Hsch. (in Muscis Capensibus, a Mundt et Maire lectis); *monoica;* caulis longe prostratus filiformis foliosus, ramis assurgentibus humilibus filiformibus *subjulaceis* duris pallide viridibus parce breviter ramulosis; folia caulina *julaceo-appressa*, humore subhorizontalia *N. Ohioensis*, sed *margine sensim revoluto convexo*, cellulis *oblique seriatis ubique rhomboidalibus;* perichaetia *longiuscule exserta* angustissima, foliis longius acuminatis tenuinervibus incrassate reticulatis; theca *distincte exserta oblongo-cylindrica*, operculo conico *oblique rostrato*, calyptra parum pilosa longe fissa; perist. *N. Ohioensis.*

Pterogonium productum Hsch. Linn. XV. p. 138.

Patria. Prom. b. spei, Hangklipp: Mundt et Maire, Junio et Julio 1821; Albany: Drège 12. Dec. 1831; in sylvis primaevis prope Krakakamma distr. Uitenhagen: Ecklon; in sylvis montanis pr. Zwellendam: Mundt.

A *N. Ohioensi* proxima notis illustratis discrepat.

94. **N. Indica** C. Müll.; *dioica; N. productae* simillima, sed caulis *valde tenuis;* folia magis acuminata, *apice denticulata*, margine convexo *haud plicato-revoluto*, cellulis *minutis* oblique seriatis; perich. *piliformi-attenuata vix denticulata*, tenuinervia; theca breviter exserta oblonga exannulata, operc. convexo acuminato duplo minori obliquo.

Pterogonium Indicum Mont. Ann. d. sc. nat. 1842. p. 250.

Patria. India orientalis, in truncis arborum soli expositis circa Kaitie in montibus Neelgheriensibus: Perrottet.

95. **N. coronata** C. Müll.; *monoica; N. productae* simillima, sed folia *margine multo latius revoluto adeo, ut utrinque plica exoriatur, profundius concava;* perich. *enervia*, basi *laxe* pellucide reticulata; theca *perfecte cy-*

dindrica longiuscula, operc. *conico brevi* incurve acuminato; calyptra et peristomium *N. productae.*

Leptodon coronatus Mont. in D'Orbigny Voy. d. l'Amer. merid. Crypt. p. 108.

Patria. Ad cort. arbor. sylvarum provinciae Corrientes prope Iribucua: D'Orbigny.

β. Theca longipedunculata.

96. **N. Domingensis** Spreng. (in litt. ad Balbis et Brid. II. p. 259.); *divica;* cespites latissimi penduli elati pallide virides duri; caulis secundarius *elongatus, basi indivisa longiuscula* foliosa, sursum *ramis elongatis aequaliter filiformibus julaceis multis pinnato-divisus crassiusculus, durus, ramulis tenerrimis capillaribus brevibus multis aggregatis obtectus;* folia caulina *julaceo-appressa, humore erecto-patentia,* late ovata breviter acuminata, concava, margine *ubique erecto apice denticulato, nervo tenui excurrente,* cellulis *angustis pellucidis laxiusculis,* alaribus multis *laxe quadratis majusculis, utriculo primordiali valde obscuris planis* recte seriatis griseis; perichaetia longius exserta angustissima pallida, foliis longe lanceolato-acuminatis convolutis longius reticulatis; theca in ped. longiusculo flavido tenero erecta ovata fuscidula.

Pilotrichum flagelliferum Brid. II. p. 259. — *Leucodon flagellaris* Bertero in sched. — *Pterigynandrum nudicaule* Brid. II. p. 182? — *Hypnum nudicaule* Schw. Suppl. I. II. p. 223, ex Hispaniola?

Patria. Per omnes Antillas et oras vicinas Venezuelae vulgatissima, sed rarissime fertilis, primum a Bertero in Domingo lecta.

Pulcherrima et distinctissima species. Fructus *N. longisetae.*

97. **N. acuminata** Hook. (Musc. Exot. tab. 151.); *dioica?* caulis elongatus repens; rami ascendentes altiusculi, basi subnudi, sursum in ramulos *crassos* longiusculos subsimplices divisi *crassi subteretes, vix pinnati,* duri; folia caulina imbricata, madore patula, *latius* ovato-acu-

minata concava, pallide viridia, acumine denticulato, margine erecto, nervo *brevissimo*, cellulis alaribus laxe quadratis *fuscis* paucioribus; perich. lanceolato-acuminata *breviora* enervia subconvoluta; theca in ped. *vix exserto* badio ovato-oblonga microstoma badia. †.

Brid. II. p. 236. — Schw. Suppl. III. I. 2. t. 246.

Patria. Nepal: Gardner.

A *N. Domingensi* congenere notis laudatis toto coelo differt.

98. **N. Lagura** C. Müll.; *dioica;* cespites maxime compacti, inferne tomentosi, ramis superioribus liberis *turgidissime julaceis* acutatis brevibus, *viridissimis splendidissimis;* folia caulina *laxe conferta longiuscule cymbiformi-oblonga, in acumen elongatum subflexuosum piliforme attenuata, nunquam plicata,* tenera, margine erecto superne subdenticulato, nervo brevi unico, cellulis elongato anguste linearibus subpellucidis virescentibus subconflatis, alaribus ad basin infimam vix conspicue impressam vix ullis; perich. latiora brevius pilifera vaginantia enervia basi laxius reticulata; theca in ped. *longiusculo* rufo laevi erecta *turgide majuscule oblonga macrostoma* exannulata, operc. conico acuminato recto, calyptra glabra straminea, *perist. simplex N. tomentosae, sed linea longitudinali fissile.*

Leucodon Lagurus Hook. Musc. Exot. t. 126. — Brid. II. p. 211. — Schw. Suppl. II. I. p. 121. t. 133.

Patria. In Staatenland ad Cap. Horn: Menzies 1787; ibidem et in insula Campbelli antarctica: J. D. Hooker 1842; in monte Tabulari insulae Van Diemen: R. Brown.

A *N. implexa* proxima notis cursive impressis toto coelo recedit.

Incertae sedis.

1. **N. Brasiliensis** C. Müll.; *dioica;* caulis repens longissimus vage ramosus flexuosus, ramis sparsis v. subpinnatis simpliciusculis brevibus rectiusculis teretibus ju-

laceis tenuiusculis flavide viridibus nitidis *vage ramosus;* folia *humore et siccitate dense et ventricose imbricata,* e basi decurrente, cellulis alaribus paucioribus pachydermibus parvulis marginalibus pellucidis quadratis *rhomboidalibus,* parum ventrose impressis praeditâ late ovata, profunde concava, recte acuminata, margine erecto subintegerrimo, nervo obsoleto tenuissimo evanido, cellulis angustissime linearibus *subdensis.*

Antitrichia Brasiliensis Hsch. Fl. Bras. I. p. 52.

Patria. Brasilia, prope Mandioccam, praedium a domino de Langsdorff conditum, in Sierra dos Orgaôs et in districtu adamantium: de Martius.

Flores masc. oblongo-gemmacei, foliis angustius ovato-acuminatis enervibus, antherid. longiusculis, paraphysibus aequalibus. *N. longisetae* similis, sed nervo unico primo momento distincta; a *N. Domingensi* notis expositis jam longe distat.

b. *Folia binervia.*

A. *Caulis apice fasciculatim divisus.*

99. N. gracilis C. Müll.; *dioica;* cespites altiusculi duri e viridi lutescentes; caulis repens; rami erecti, *basi longiuscula indivisa foliosa, superne fasciculatim divisi, ramulis iterum fasciculatim divisis brevibus curvatis flagelliformibus* julaceis filiformibus *attenuatis;* folia caulina dense appressa, madore erecto-patula, *e basi subdecurrente late ovata breviter acuminata,* concava, nervis binis tenuibus breviusculis, margine *ubique erecto apice denticulato,* cellulis *oblongo-ellipticis, alaribus planis permultis incrassatis rhomboidalibus oblique seriatis;* perichaetialia exserta, late convoluta, apice subito fere acuminata, integerrima, pallida, longius laxius et pellucidius reticulata; theca in ped. breviusculo rubente laevi erecta *oblongo-cylindracea,* exannulata, operc. *conico,* calyptra glabra; perist. d. ext. *anguste lanceolati albidi indivisi breves laeves densius trabeculati, int. breviores hyalini subcellulosi.*

Leptohymenium gracile Hüb. Musc. Germ. p. 554. — *Pterigynandrum gracile* Hdw. Musc. Fr. IV. p. 16. t. 6. — Brid. II. p. 174. — *Pterogonium gracile* Sw. Musc. Suec. p. 26. — *Grimmia ornithopodioides* Web. et Mohr. Bot. Taschb. p. 148. — *Encalypta gracilis* Roth. Fl. Germ. III. p. 154. — *Hypnum gracile* L. Syst. Veget. p. 952. — *H. cincinnatum* Brotero. — *H. palatinum* Neck. Enum. Pl. Pal. p. 454. t. 1. f. 1. — *H. ornithopodioides* Huds. Fl. Angl. p. 430. — H. gracile ornithopodioides. Dill. Musc. p. 328. t. 41. f. 55.

Patria. In saxis et truncis arborum per totam Europam temperatam et calidiorem, in Germania australi, per Helvetiam australem, Istriam et Italiam totam insulasque vicinas, per agrum Mediterraneum totum usque ad prom. b. spei et per Galliam australem, Hispaniam, Lusitaniam, Angliam, Daniam et Sueciam; sed rarissime fructificans. — *Februario.*

N. Domingensi proxima et e muscis Europaeis pulcherrimis.

B. *Caulis vage ramosus.*

a. *Cellularum alarium series rectae.*

100. N. teres C. Müll.; *monoica; dense cespitosa intertexta, ramis pulcherrime julaceis teretibus sericeis sulphureo-viridibus* ascendentibus crassiusculis inaequaliter breviusculis subsimplicibus irregulariter intertexte pinnata; folia caulina densissime appressa, latissime ovata obtusa, breviter acuminata, *tenera, subpellucide viridia, basi chlorophyllosa,* cellulis linearibus angustis, alaribus laxe quadratis chlorophyllosis, dein pellucidis subgranulosis, series regulares rectas efficientibus, nervis brevibus, saepe obsoletis; perich. late vaginantia, *stricta, longe lanceolata, pallidissima,* cellulis *basi tenerrimis laxis, superne veluti conflatis, vix conspicuis, plicata;* ped. purpureus.

Patria. Mexico: Galeotti in Hb. de Martens.

Pulcherrima species, notis illustratis facile discernibilis et formis minoribus *N. seductricis* habitu haud dissimilis.

101. **N. straminea** C. Müll.; *dioica;* repens flexuosa *myosuroidea* cladorrhizans, ramis brevibus *tenuibus julaceis stramineis mollibus nitidulis ascendentibus curvatis;* folia sicca et madefacta julaceo-appressa, caulina late ovata, *basi saepe luteo-colorata,* ramulina *anguste lanceolata breviter acuminata, anguste elliptica, cochleariformi-concava, margine usque ad medium paullo revoluto, apice subdenticulato,* nervis brevibus, cellulis angustissime linearibus pallidis, alaribus laxe quadratis pellucidis granulosis; perich. multa dense vaginantia, recta, longius acuminata, basi laxius reticulata, externa minora reflexiuscula; theca in ped. mediocri purpureo longiuscule cylindracea microstoma, pallide fuscata, operc. oblique subrostrato, annulo composito; perist. d. anguste lanceolati pallide aurantiaci dense trabeculati, latere aequales, linea media vix exarati, cilia parum breviora tenera carinata hic illic pertusa pallidiora.

Patria. Nepal: Hb. Kunzeanum.

Ramis julaceis myosuroideis stramineis mollibus valde flexibilibus haud fragilibus a *N. julacea* primo visu distinctissima. Magis ad *Leptohymenia* spectans.

b. *Cellularum alarium series obliquae.*

102. **N. longiseta** Hook. (Musc. Exot. t. 43.); *monoica;* longe repens, ramis *subteretibus subjulaceis* obtusis fragilibus rigidis *brevibus inaequalibus* pinnata, luteo-viridis splendens, dein subrufescens; folia appressa, latissime ovata, *humore patula* acumine plus minus longo terminata, concava rigida, margine ubique erecto integerrimo, nervis brevissimis obsoletis, cellulis anguste linearibus brevibus, e basi veluti radiatim exientibus, alaribus creberrimis depresse rhomboidaliter laxe quadratis, series obliquas efficientibus, pellucidis granulosis; perich. late vaginantia longe subflexuose acuminata, tenuiora, basi cellulis ubique laxis, superne in membranam quasi conflatis; thecae in ped. elongatis rigidis *plerumque aggregatis* purpurascentibus cylindraceo-ellipticae majusculae erectae, fuscidulae, exannulatae, operc. conicis obli-

quis; perist. d. planissimi late lanceolati fragiles pallidi, trabeculis remotis et linea media tenuibus notati, cilia aequalia tenuissima.

Brid. II. p. 228. — Schw. Suppl. III. I. 2. t. 230.

Patria. In locis umbrosis m. Quindiu, in Cordillera de los Andes de Cundinamara: Humboldt et Bonpland.

103. N. cylindricaulis C. Müll.; *monoica; N. longisetae* simillima, sed caulis ramis *perfecte teretibus, amoene julaceis aequalibus longiusculis* rigidissimis *eleganter* pinnatus, rufescenti-viridis sericeus; folia *sicca et madefacta densissime appressa,* e reliquis cum perichaetialibus illis *N. longisetae* simillima; theca *turgide ovalis,* operc. conico obliquo, annulo nullo; perist. d. *breviores lanceolati, e lamina duplici inaequali compositi, lamina externa angustissima pallide aurantiaca articulata, l. interna ad latera multo latius prominente pallidiore,* cilia *quam maxime tenera tenuissima* fugacissima.

Neckera longiseta Hsch. in Musc. Mex. No. 1086. — *Neckera julacea* C. Müll. Linn. XIX. p. 214. — *Leptohymenium longisetum* Hmp. Linn. XX. p. 83.

Patria. Mexico, pr. Jalapam: Deppe et Schiede. Venezuela, Caripe: Moritz No. 120 et 120. a.; Cumbre de Caracas, ad lapides, soc. *N. nigrescentis,* altitud. 5000 pedum: Wagner, 9. Sept. 1849.

104. N. squarrosa C. Müll.; *monoica;* vage ramosa procumbens laxe intertexta, *gracilis, humore crassiuscula,* ramis flexuosis curvatis *squarrosulo-julaceis filiformibus* brevibus remotis inaequaliter pinnata, e viridi lutescens, dein apicibus foliorum aurantiaco-coloratis parum rufescens; folia *humore amoene dense squarrosa, late subrotundate ovata,* breviter acuminata, breviora, cochleariformi-concava, margine ubique erecto, superne obsolete denticulato, nervis et cellulis *N. longisetae;* perich. anguste vaginantia longe reflexe acuminata, basi cellulis laxis superne in membranam quasi conflatis, saepe intense aurantiacis; theca in ped. mediocri purpurascente

rigido plerumque solitario erecta, *breviter* turgide elliptica, ore coarctata, leptodermis fuscidula, operc. conico acuminato rectiusculo, annulo nullo; perist. d. late lanceolati, aurantiaci, *inferne valde striatuli, diaphane articulati* et linea media *diaphana* exarati, superne laeves subfissiles, cilia *valde irregularia latiora erosa brevissima* flavida.

Leptohymenium julaceum Hmp. Linn. XX. p. 83. — *Neckera julacea* C. Müll. Linn. XIX. p. 214 et Wils. in Gardner Musc. Bras.

Patria. Venezuela, Caripe: Moritz No. 117 et 118. 1845. Brasilia, Serra de Santa Brida, prov. Goyaz: G. Gardner No. 77. m. Febr. 1840.

A *N. cylindricaule* et *longiseta* proximis ob vestigia excellentia distinctissima.

105. **N. squarrulosa** C. Müll.; *monoica; N. squarrosae* simillima, sed rami *tenuissime filiformes, minus squarrosi;* folia caulina *minora,* cellulis *ellipticis acutis veluti incrassatis,* alaribus creberrimis; perich. *angustissime* longe acuminata *erecta;* theca in ped. flavido rubente turgide elliptica *minor;* perist. d. *brevissimi anguste concolori-aurantiaci, haud striatuli,* fissura apice parum secedente, dense trabeculati, cilia *tenerrima parum breviora* fugacissima albida.

Pterogonium squarrulosum Mont. Lond. Journ. of bot. 1845. p. 9.

Patria. Insulae Philippinenses, ad corticem arborum: Cuming Coll. No. 2201. Java: Hb. Hampean.

106. **N. julacea** Schw. (Suppl. III. I. 2. t. 255.); *monoica;* habitus *N. cylindricaulis,* sed rami amoene virides *squarroso-foliosi;* folia caulina *siccitate apicibus patentibus,* integerrima; perich. erecta, interna pallidissima; theca in ped. ferrugineo *longiuscule anguste cylindracea;* perist. d. late lanceolati obtusiusculi, fusco-badii, apice lutescentes, turgidi rigidi, dense trabeculati, linea longitudinali distincte conspicua exarati, cilia *perangusta dentibus trientem breviora, basi connata albida integra.* †.

Pterogonium julaceum Hook. l. c.

Patria. Nepal Indiae.

Subsectio II. **Harrisonia** Spreng. Hmp. — Caulis teres; *theca in ramo brevi veluti terminalis*; folia cochleariformi-concava, saepe leviter plicata, cellulis ad parietes crenulatis.

Cryphaeae Dichotomariae generis *Pilotrichi* habitu simillimae plantae.

A. *Folia enervia.*

a. *Folia panduraeformia.*

107. N. Humboldtii C. Müll.; dioica; caulis elongatus julaceus crassiusculus, ramis cuspidatis julaceis brevibus v. iterum divisis eleganter pinnatus, lurido-viridis dein ferrugineus; folia caulina julaceo-appressa, apicibus patentibus squarrulosa, humore magis erecto-patentia, perfecte panduraeformi-oblonga, in pilum longiusculum flexuosum tenue attenuata, margine basi anguste revoluto, superne subinvoluto subdenticulato, nervis nullis, cellulis elongatis angustis prosenchymaticis carnosis luridoviridibus, ad parietes maxime crenulatis, opacis, basi fuscis laxioribus haud crenulatis, alaribus multis perfecte quadratis laxis amoene et intense fuscis, ventrem distinctissimum sistentibus, cellulis inde in limbum ad apicem productum fuscum angustum incrassatis; perichaetia ramis brevibus aemulantia, foliis imbricatis, caulinis similibus, sed angustis longius piliferis; theca in ped. mediocri rufo laevi erecta maxime globosa macrostoma, siccitate sulcata, badia, exannulata, gymnostoma, operc. convexo oblique subulato, calyptra glabra parva.

Harrisonia Humboldtii Spreng. Syst. Veg. IV. I. p. 145. — *Anoectangium Humboldtii* Brid. II. p. 165. — *Hedwigia Humboldtii* Hook. Musc. Exot. t. 137. — Schw. Suppl. II. p. 9. t. 104.

Patria. In montis Quindiu apricis frigidis, altitudine circiter 9480 pedum in regno Novo-Granadae: Humboldt et Bonpland. In Guadeloupe: Pastor Forsström. E Mexico quoque habemus.

Muscus pulcherrimus et memorabilis, e structura folii *Rhacomitriis* affinis.

Obs. Ex insulis antarcticis Eremitae et Aucklandi ab J. D. Hooker lectam et ex insula Bourbonis, loco Plaine des Chicots ad rupes graniticas a Bory St. Vincent relatam et in Hb. Bridelii nomine *Hypni purpurascentis* asservatam pusillam, sed sterilem vidimus. An igitur specimina haecce ad speciem praecedentem revocanda sint, posteri observent. Folia magis convolutacea reperimus. In insulis maris pacifici Forster quoque legisse dicitur.

b. *Folia oblongo-ovata.*

α. Theca exserta.

108. **N. secunda** C. Müll.; *monoica;* cespites laxi, fusco-lutei rigidi; caulis repens; rami erecti inferne nudi apicem versus foliosi teretes obtusi, ramulis brevibus simplicibus v. longioribus iterum parce divisis, teretibus inordinate ramosi, flagellis tenerrimis interdum praediti, dense foliosi; folia caulina dense appressa saepe secunda, humore erecto-patentia subhorizontalia, e basi decurrente subreflexa *angustiore oblongo-ovata* breviter acuminata, concava, integerrima, enervia, vix plicata, margine *ubique fere valde revoluto,* cellulis basi longis fuscidulis, sursum sensim minoribus dolioliformibus, latere crenulatis, luteo-viridibus incrassatis duris, alaribus ad basin decurrentem revolutam incrassate quadratis, sursum minoribus, omnibus tenerrime papillosis; perichaetia in ramo breviter elongato exserta pallida cylindrica, foliis vaginantibus longiuscule oblongo-acuminatis, *superne denticulatis, strictis;* theca in ped. breviter exserto laevi rufo erecta elliptica microstoma exannulata badia, operc. longe subulato obliquo, calyptra glabra cucullata pallida.

Braunia secunda Br. Europ. Fasc. 29 et 30; Braunia; p. 3. — *Harrisonia secunda* Spreng. Syst. Veget. IV. I. p. 145. — *Anoectangium secundum* Brid. II. p. 165. — *Hedwigia secunda* Hook. Musc. Exot. t. 46. — Schw. Suppl. III. I. 1. t. 209.

Patria. In regni Mexicani montosis apricis, juxta Toluccam ad pedem montis perpetua nive obtecti, regione frigida, altitudine 9840 pedum: Humboldt et Bon-

pland; in saxis pr. Malpays de la Joya societ. *Bryi argentei:* Schiede, Sept. 1829; in locis haud designatis: C. Ehrenberg in societate *Pilotrichi subrevoluti* legit.

A *N. alopecura* simillima notis cursive impressis certe differt.

109. N. alopecura C. Müll.; *monoica vel polygama, N. secundae* simillima, sed folia *late ovata* breviter acuminata, margine *vix vel parum revoluto;* perich. late vaginantia obtusiuscula, *acumine brevi subfalcato integerrimo;* theca et caetera *N. secundae.*

Braunia sciuroides Br. Europ. Fasc. 29 et 30; Braunia; p. 3. t. 1. — *Hedwigia sciuroides* De Not. Syllab. Musc. p. 95. — *Anoectangium sciuroides* Bals. et De Not. Pugill. n. 23. — *Leucodon alopecurus* Brid. II. p. 214! — *Gymnostomum ciliatum var. nudum* Schleich. in schedulis!

Patria. In Helvetiae locis accuratius non designatis: Schleicher; ad rupes in valle Levantina Helvetiae Ticinensis: Brombilla.

Planta rarissima et rarissime fructifera.

110. N. macropelma C. Müll.; *monoica; N. secundae* simillima, sed folia *N. Schimperianae;* perich. longiuscule vaginantia lanceolato-acuminata, *valde plicata,* margine *latissime revoluto,* cellulis basi laxissimis; theca in pedunculo *elongato* tortili rufo laevi erecta *cylindrica stricta* longiuscula truncata.

Anoectangium (Hedwigia) Indicum Mont. in schedulis. — *A. secundum* Mont. in Musc. Neelgher. Ann. d. sc. nat. 1842. n. 32. — *Hedwigia secunda* Grev. in Hb. Hamp.

Patria. India Orientalis, in montibus Neelgheriensibus, ad rupes basalticas prope Kaitie: Perrottet.

111. N. Schimperiana C. Müll.; *monoica; N. secundae* simillima, sed rami crassiores subcompressi, folia e basi decurrente *latissime ovata, longius acuminata,* distinctius plicata, grossius areolata, margine ubique maxime revoluto; perich. *N. alopecurae;* theca in ped. parum longiore *anguste cylindrica arcuata,* oblique subulate operculata.

Braunia Schimperiana Br. Europ. Fasc. 29 et 30; Braunia; p. 3. — *Harrisonia Schimperiana* Hmp. in Excurs. in *H. squarrulosam* Ic. Musc. t. 19. — *Hedwigia Schimperiana* Br. et Sch. in Musc. Abyss.

Patria. Abyssinia, in alpibus Simensibus: W. Schimper copiose legit 1840.

112. N. diaphana C. Müll.; *monoica; N. secundae* simillima, sed folia humore *perfecte horizontalia*, distinctius plicata, *e basi angustiore latissime cochleariformi-ovata, acumine diaphano chlorophyllo omnino destituto longiusculo*, margine *ubique late convexo et angustissime distincte revoluto;* perichaetia distincte convoluta exserta, foliis anguste vaginantibus lanceolato-acuminatis, basi laxe reticulatis; pedunculus laevis rufus.

Hedwigia Schimperiana Hmp. in Hb. Kunzeano.

Patria. Prom. b. spei: Pappe.

Fructum non vidimus.

113. N. sphaerocarpa C. Müll.; *monoica;* latissime cespitosa robustissima ramosissima, habitu *N. secundae;* folia ovato-acuminata, valde plicata, margine angustiuscule revoluta; perich. *N. macropelmatis;* theca *breviter pedunculata maxime globosa*, operculo depresso breviter oblique rostrato.

Hedwigidium squarrulosum Br. Europ. Fasc. 19 et 20; Braunia, p. 3. — *Harrisonia squarrulosa* Hmp. Ic. Musc. t. 19.

Patria. Mexico: C. Ehrenberg. E Guatemala copiose communicavit Kegel.

Pulcherrima species.

β. Theca immersa.

114. N. imberbis C. Müll.; *monoica;* late cespitosa crassiuscule teres, *parce breviter ramulosa humilis*, densifolia ferruginea, apicibus viridibus obtusis; folia caulina densa appressa, humore subhorizontalia, haud secunda, *anguste ovato-acuminata*, margine late revoluta, haud plicata *molliora;* perich. longius vaginanti-lanceolato-acuminata, plicata inferne anguste elongate, basi laxe,

apice incrassate quadrate reticulata; theca *immersa brevissime pedunculata, subglobosa v. obovata turgida* microstoma, gymnostoma exannulata, operc. brevi conico obliquo, calyptra parva cucullata, saepius fissa.

Hedwigia imberbis Spruce in Musc. Pyr. No. 338. Ann. and Mag. of Nat. Hist. 1849. p. 187. — *Hedwigidium imberbe* Br. Europ. Fasc. 29 et 30; Hedwigidium; p. 3. t. 1. — *Schistidium imberbe* Nees et Hsch. in Br. Germ. I. p. 99. t. 8. — Brid. I. p. 118. — *Gymnostomum imberbe* Engl. Bot. t. 2237. — *Anoectangium imberbe* Hook. et Tayl. Musc. Brid. p. 14. t. 6. — *A. ciliatum v. rufescens* W. Arn. Disp. p. 11.

Patria. Ad rupes prope Glengariff Hiberniae: Miss Hutchins, Wilson; in insula Osterõe Finmarkiae: Blytt; in Pyrenaeis ad Bagnères de Bigorre in rupib. porphyraceis: W. P. Sch., ad saxa granitica pr. Larons: Spruce et in rupib. schistosis pr. Pouzac et Gazos: Philippe. — *Auctumno.*

Planta rarius occurrens notis cursive impressis ab omnibus congeneribus sectionis hujusce distinctissima.

B. *Folia uninervia.*

115. **N. Drummondi** C. Müll.; *monoica? N. imberbi* simillima; caulis laxe cespitosus erectus subbiuncialis ex olivaceo nigricans, ramis siccitate acutis, ramulis saepius flagelliformibus gracillimis; folia caulina erecto-appressa, humore patentia, late ovata apiculata concava, ob papillas margine tenerrimas subcrenulata, integerrima, concava, margine recurva, *nervo latissimo percursa;* perichaetia conspicua subexserta, foliis caulinis similibus, sed latioribus rectioribus magis oblongis; theca in pedunculo aequilongo parum curvulo subexserta, rotundato-ovata, siccitate rugoso-striata, operculo rostellato. †.

Schistidium Drummondi Taylor. Lond. Journ. of bot. 1846. p. 57. — An *Sch. Australe* Wils. Ms. huc pertineat, putemus. Auctor ipse l. c. p. 452. *Neck. imberbis* varietatem declaravit, quod dubitamus.

Patria. Nova Hollandia, Swan River: James Drummond.

A *N. imberbi* nervo praesente primo momento differt.

116. **N. ambigua** C. Müll.; dioica? caulis *semipedalis pendulus crassiusculus densifolius luridо-viridis, inferne ramis longiusculis similibus* 1—2 *pinnatis superne simplicibus brevibus* 1—3 *pinnatus, ramosissimus;* folia conferta *brevia, oblongo-ovata obtusa, cochleariformi-concava et profunde plicata,* in acumen breve reflexiusculum producta, integerrima, nervo unico *tenui* ultra medium evanido, margine latiusculo revoluto subdeplanato, *e cellulis longioribus laevibus flavidis veluti limbato,* cellulis brevibus densissimis valde opacis tenerrime scaberrimis, luride viridibus, basi fuscis, *alaribus incrassate quadratis rectis fuscidulis apicem versus longioribus flavioribus laevibus in limbum marginis exientibus;* perich. similia longiora castaneo-lutescentia; theca *immersa subglobosa vix conspicua,* rufo-fusca, operc. *planiusculo mammillato;* perist. *simplicis d. horizontales lanceolati lutei trabeculati.*

Cleistostoma ambiguum Brid. I. p. 154. — Schw. Suppl. III. II. 1. t. 266. — *Pterogonium ambiguum* Hook. Trans. of Linn. Soc. Lond. IX. p. 310. t. 26. f. 4.

Patria. Nepal, in arboribus: Buchanan.

Fructum non vidimus. E foliorum *N. Harveyanae* affiniore structura congeneribus hujus sectionis species subdissimilis; ex analogia tamen rami fertilis longioris huc posuimus.

Subsectio III. **Eulecodon.** Caulis teres v. homomallophyllus, dichotome divisus, *perichaetiis longe exsertis*, foliis ovate v. lanceolate acuminatis concavis *distincte plicatis.*

a. *Folia enervia.*

α. Folia ovato-acuminata.

117. **N. sciuroides** C. Müll.; *dioica;* cespites latissimi altiusculi; caulis primarius repens, secundarius erectus, foliis dense imbricatis crassiusculus *teres,* parce divisus, ramis plus minus curvatis, inferne ferrugineis superne viridibus v. lutescentibus; folia caulina plus minus homomalla, late ovato-acuminata *curvata;* robusta majuscula, enervia, pluries distincte plicata, concava, mar-

gine inferne late revoluto subintegerrimo, cellulis densis oblongis, basi fuscis, alaribus permultis ad alas revolutas *rhomboidalibus quadratis;* perichaetia longiuscule cylindracea exserta pallida, foliis longe convoluto-acuminatis, elongate anguste areolatis; theca in ped. *breviusculo* recto rufo laevi erecta *elliptica microstoma* fusco-badia, dein nitida, imperfecte annulata, operc. *conico brevi recto,* calyptra longa albida laevi; perist. d. breviter lanceolati valde bifidi fragiles albidi laeviusculi.

Leucodon sciuroides Schw. I. II. p. 1. et Suppl. II. I. p. 82. t. 125. — Brid. II. p. 208. — *Pterigynandrum sciuroides* Brid. Sp. Musc. I. p. 134. — *Pterogonium sciuroides* Turn. Musc. Hib. p. 32. — *Fissidens sciuroides* Hdw. Sp. Musc. p. 161. — *Dicranum sciuroides* Sw. Musc. Suec. p. 32. — *Cecalyphum sciuroides* P. B. Prodr. p. 51. — *Fuscina sciuroides* Schrank. Baiers. Fl. II. p. 452. — *Trichostomum sciuroides* Web. et Mohr. Taschb. p. 132. — *Hypnum sciuroides* L. Sp. Pl. p. 1596. — H. arboreum sciuroides Dill. Musc. p. 309. t. 41. f. 54.

β. cylindricarpa; caulis crassior vix homomallophyllus, folia breviora vix obliqua, theca longior cylindracea subarcuata, perist. plus minus bifidum. *Leucodon Morensis* Schw. Suppl. I. II. p. 2 et II. I. p. 82. t. 125. — Brid. II. p. 210.

Patria. Per totam Europam, ad arbores vetustiores et rupes, raro tamen fertilis. Var. *β.* in monte Mora Helvetiae a Schleicher detecta, praeterea per Europam totam australem hic illic observata. — *Vere.*

Caulis gemmas multas saepe nascens, igitur sterilis.

118. **N. brachypus** C. Müll.; *dioica; N. sciuroidi* simillima, sed perichaetia *apice thecam vix exsertam veluti ocreate includentia;* theca *breviter ovalis urceolata,* dentibus angustis *indivisis.*

Leucodon brachypus Brid. II. p. 211. — C. tab. in Hmp. Ic. Musc. t. 15. — *L. ocreatus* Brid. Hb.

Patria. Per Americam septentrionalem totam vulgaris, in montosis arborea, ibidem *N. sciuroidi* respondens.

119. **N. curvirostris** C. Müll.; *dioica; N. sciuroidi* simillima, sed caulis *compressiusculus;* folia *maxime se-*

cunda laxe imbricata, magis acuminata; theca in ped. *breviter exserto* flavido dein rubente laevi *turgide ovalis* microstoma, subannulata, operculo *oblique rostrato;* perist. d. ext. latius lanceolati robustiores perforati, *interni: membrana brevissima truncata.*

Leucodon curvirostris Hmp. Ic. Musc. t. 16.

Patria. Mexico: C. Ehrenberg.

120. **N. Cryptotheca** C. Müll.; cespites robusti laxi; caulis repens, ramis assurgentibus *crassis robustis densifoliis* altiusculis luteo-viridibus parce divisis flexuosis, obtusis humore apice stellatis; folia caulina *densissime imbricata* parum secunda, humore patula, late ovata breviter acuminata, concava, robusta *stricta* majuscula, margine ubique late revoluto integerrimo v. crenulato, plicis distinctis pluribus, nervis nullis, cellulis anguste oblongis incrassatis recte seriatis, basi fuscis, alaribus *minute rotundatis* oblique seriatis; perichaetia exserta pallida elongata cylindrica, foliis longe lanceolato-acuminatis convolutis integerrimis; theca in ped. *sessili v. parum exserto turgide ovalis,* operc. conico *acuminato* rectiusculo; perist. simplicis dentes externi breves lanceolati obtusiusculi, linea longitudinali hic illic secedente exarati, albidi articulati laeves.

Leucodon Cryptotheca Hmp. Ic. Musc. t. 17.

Patria. Mexico: C. Ehrenberg.

A *N. sciuroide* notis cursive impressis certe distincta, a *N. brachypode* statura robustissima jam primo adspectu distans. Forte dioica.

121. **N. Canariensis** Brid. (Sp. Musc. II. p. 29.); *dioica;* caulis *tenuis repens foliosus pendulus;* rami brevibus simplicibus v. elongatis parce divisis, omnibus *teretibus crassis curvatis acutatis, caudam vulpinam veluti referentibus, pulchre luteo-ferrugineis sericeis;* folia caulina arctissime appressa vix secunda, humore valde patula, late ovato-lanceolata acuminata, *maxime plicata, stricta, tenuiter membranacea,* scariosa, enervia, margine ubique late revoluto, cellulis anguste linearibus pallidis

incrassatis rectis, basi amoene flavidis v. fuscis, alaribus permultis *maxime incrassatis minute rotundatis recte seriatis* coloratis; perichaetia *longissime cylindracea* attenuata pallida, foliis *longissime* lanceolato-acuminatis convolutis enervibus; theca in ped. *elongato* laevi flexuoso fusco erecta, *e collo elongato globoso-ovalis microstoma*, exannulata, nitide badia, operc. *longe oblique rostrato*, calyptra elongata ventricose subulata glabra lutescente; perist. *duplicis* d. ext. *breves* lanceolati albidi spongiosi, madore extrorsum stellato-recurvi trabeculati integri, interni: membrana brevis albida spongiosa.

Astrodontium Canariense Schw. Suppl. II. I. p. 128. t. 134 et Brid. II. p. 220. — *Plaubelia Canariensis* Brid. olim. — *Leucodon Canariensis* Schw. Suppl. I. II. p. 3. — *Hedwigia Schmidtii* Hook. Musc. Exot. t. 170. — *Hypnum Canariense* Brid. Musc. Rec. II. II. p. 145. — Hypnum flagellis instar caudae vulpinae. Dill. Musc. p. 306. t. 39. f. 41.

Patria. In omnibus insulis Canariis, praesertim in Teneriffae sylvis prope Lagunam, truncos arborum vetustos habitans: Hb. Dillen., Rudley, Bory St. Vincent, Prof. Schmidt 1815.

E pulcherrimis et distinctissimis Neckeris, *N. sciuroidi* proxima.

122. **N. Harveyana** C. Müll.; *dioica?* caulis repens nudus, ramis erectis subsimplicibus *apice curvatis;* folia dense imbricata *distincte secunda, ovato-acuminata*, concava plicata integerrima, margine revoluta, enervia, cellulis *brevibus oblongis mollibus crassiusculis hic illic pellucidis, plerumque autem tenerrime scabris opacis igitur subconflatis, sordide viridibus, alaribus minutis subquadratis subdiaphanis;* perich. exserta; theca in ped. brevi recta ovata macrostoma; perist. simplicis d. *latissime lanceolati breves multoties perforati.*

Sclerodontium secundum Harv. in Hook. Ic. Pl. Rar. t. 21. f. 1; cum diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 11.

Patria. India borealis: Wallich, Royle.

Notis designatis a *N. stricta* subaffini distincta. Specimina fertilia non vidimus.

β. Folia lanceolato-acuminata.

123. N. trichophylla Sw. (Fl. Ind. Occ. III. p. 1798.) *dioica;* caulis longe repens filiformis subfoliosus flexuosus, *ramis permultis simplicibus compressis amoene late sciuroidibus plerumque in apicem longiorem filiformem attenuatis mollibus amoene flavescentibus sericeis;* folia caulina densa, *plumose erecto-patentia,* e basi rotundatâ *anguste lanceolata, in acumen elongatum flexuosum planum loriforme producta,* concava, enervia, plicata, margine ubique erecto vel vix convexo ubique denticulato, cellulis elongatis angustissime linearibus pallidis, alaribus ad basin infimam *parum impressam vix ullis;* perichaetia minuta pallida vix exserta, foliis brevioribus et tenuius acuminatis denticulatis quam caulinis; theca in ped. mediocri laevi purpureo erecta ovata, operculo subulato; perist. duplicis d. ext. inflexi, int. ciliaeformes erecti.

Brid. II. p. 227. — *Hypnum trichophyllum* Sw. Prodr. Fl. Ind. Occ. p. 141. — Hedw. Sp. Musc. p. 274. t. 71. — Muscus terrestris, repens, major, ramulis circa extremitatem conglomeratis, foliolis multis et minimis capillaceis caulem ambientibus. Sloane. Cat. Jam. p. 12. — Hist. I. p. 68. n. 19. descr. t. 25. f. 2. s. caps. — Dill. Musc. p. 336. n. 74.

Patria. Ex insula Jamaica Sloane primus descripsit, dein Swartz legit; ex insula Trinidad Antillarum minorum in monte Tocuche a pharmacopola Crüger lectam habemus. Rarissime fructificans.

Thecam non vidimus. *Hypno sericeo* haud dissimilis, *N. tomentosae* tamen multo affinior.

124. N. tomentosa C. Müll.; *dioica? N. trichophyllae* simillima, sed *rami in apicem filiformem non attenuati, veluti truncati,* rigidiores; *basi tomento compacto intertexti,* sericei; folia caulina in acumen longum *flexuose piliforme attenuata, margine ubique distincte revoluta, profundius plicata, nervo tenui unico brevi;* perichaetialia tomento inserta at ex axillis foliorum exserta, caulinis multo latiora vaginantia, haud plicata, enervia; theca in ped. mediocri rufo laevi erecta, *e collo longiusculo*

sensim oblonga macrostoma, calyptra laevi pallida; perist. *simplex internum, dentibus longiusculis latiusculis medio perforatis albidis laevibus fugacissimis, in membrana altiuscula positis.*

Leucodon tomentosus Hook. Musc. Exot. t. 37. — Schw. Suppl. II. I. p. 120. t. 133. — Brid. II. p. 212.

Patria. In sylvis Cinchonae prope Loxa Peruviae, alt. 1080 hexapodum, reg. temperata: Humboldt et Bonpland.

N. flavescenti et *Regnellianae* simillima, sed quoad structuram foliorum, cellulis alaribus laxe quadratis carentem, e sectione distincta.

125. **N. suborthosticha** C. Müll.; *dioica; N. tomentosae* simillima, sed rami basi tomentosi *magis terentes, e viridi pallide straminei;* folia caulina *indistincte orthosticha magis appressa, late lanceolato-acuminata,* in acumen elongatum tenuissimum *strictum* producta, *splendentia, minus plicata,* margine ubique denticulato *erecto,* nervo latiore; perich. latiora; theca *N. tomentosae.*

Leucodon tomentosus C. Müll. in Linn. XIX. p. 210 et Hampe l. c. XX. p. 90.

Patria. Venezuela, Merida: Moritz No. 185.

Peristomium et operculum non vidimus.

126. **N. stricta** C. Müll.; *dioica?* caulis repens nudus, ramis erectis subsimplicibus patentifoliis strictis *acutiusculis,* flavidis nitidis; folia caulina densa, erecto-patentia, superiora interdum secunda, e basi subcordata amoene fusca ovatâ *longiuscule lanceolato-acuminata acutissima, valde plicata, integerrima,* enervia, margine *basi latissime revoluto, superne convexo,* cellulis oblongo-linearibus incrassatis rectis, pallide viridibus, laevibus, scariosis, alaribus *permultis rotundatis incrassatis subobliquis obscurioribus;* perich. exserta; theca in ped. *brevi* erecta *ovata macrostoma.*

Sclerodontium strictum Harv. in Hook. Ic. Pl. Rar. t. 21. f. 2; cum diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 11.

Patria. India borealis: Wallich, Royle.

Specimina fertilia non vidimus.

b. *Folia distincte uninervia.*

127. N. sericea C. Müll.; *dioica;* cespites *procumbentes humiles intertexti sericeo-virides, dein pallide rubiginosi;* caulis longe repens foliosus, ramis *humilibus breviter fasciculatim ramulosissimis, ramulis flexuosis curvatis;* folia caulina densissime imbricata, humore erecto-patentia, parum secunda, e basi *cordata margine tantum infimo revoluta et impressâ* late lanceolato-acuminata, paulisper curvata, concava, valde plicata, *ubique subdenticulata,* nervo ultramedio tenui, cellulis angustissime linearibus pallide virescentibus, alaribus *ad basin ventricose impressam laxiuscule quadratis pellucidis subgranulosis;* perichaetia brevia exserta, foliis squarrosis vaginanti-lanceolatis, acumine latiusculo plano superne denticulato terminatis, basi laxe pellucide reticulatis, uninervibus; theca in ped. mediocri erecta, *e collo longo turgide oblonga leptodermis,* fuscidula exannulata, operc. *conico longe oblique subulato;* perist. *duplicis dentes externi et interni irregulares obsoleti fugacissimi* albidi laeves.

Leucodon sericeus Hsch. in Musc. Capensibus Hb. Reg. Berol., a Mundt et Maire lectis.

Patria. Prom. b. spei, ad Hangklipp: Mundt et Maire 1821; ad truncos arborum pone pagum George atque in Knytra: Pappe; ad Olifantshoek: Ecklon.

Hypno myosuroidi haud dissimilis.

128. N. pallida C. Müll.; *monoica;* cespites laxi; caulis procumbens, ramis erectis teretiusculis subdivisis; folia caulina pallide viridia dense imbricata, terminalia saepe secunda, ovata, longe acuminata, *acumine apice diaphano,* integerrima, nervo *pellucido excurrente,* cellulis subtilibus oblongis, superne minute rotundatis, basi fuscis, alaribus rotundatis; perichaetia *vix exserta,* foliis ovatis acuminatis, apice patentibus, interioribus triplo majoribus, subenervibus, convolutaceis *longe piliferis;*

basi fuscis, alaribus maxime incrassatis, utriculo primordiali granulosis, oblique seriatis; perichaetia longe exserta pallida cylindracea, foliis convolutis lanceolato-acuminatis, apice summo subdenticulatis, basi laxe elongate pellucide reticulatis, enervibus; theca in ped. brevi rufo laevi erecta ovata badia majuscula, ore minori, exannulata, *deoperculata pendula*, operc. conico brevi obliquo acuminato; perist. *duplicis* lanceolato-acuminati albidi laeves, dense trabeculati, *integri, medio perforati, interni capillares concolores articulati;* calyptra glabra.

Cyrtopus curtipendulus Spruce in Musc. Pyr. No. 113. Ann. and Mag. of Nat. Hist. 1849. p. 151. — *Antitrichia curtipendula* Brid. II. p. 222. — *Anomodon curtipendulus* Hook. et Tayl. Musc. Brit. p. 79. t. 22. — *Neckera hamulosa* Vill. Cat. Meth. p. 42. — *Hypnum curtipendulum* L. Sp. Pl. p. 1504. — *H. montanum* Lamarck. — Brid. Musc. Rec. II. II. p. 145. — Hypnum dentatum, curtipendulum, viticulis rigidis. Dill. Musc. p. 333. t. 43. f. 69.

β. Hispanica; folia e basi angustiore late et perfecte ovata acuminata, amoene chlorophyllosa, theca cylindrica. *Antitrichia curtipendula var. Hispanica* Schimp. in sched.

Patria. Per totam Europam et in America septentrionali ad truncos arborum vetustos et rupes humidas. Var. *β.* in Hispania, in Sierra Morena et ad Escurial: W. P. Sch. 1847. — *Primo vere*, sed rarius fructificans.

A *N. sciuroide* affini caracteribus explicatis toto coelo refugit.

Subsectio IV. **Lasia** Brid. I. p. 200. — Caulis *pinnatim divisus compressus, ramis patentibus rectis*, foliis acuminatis laevius plicatis, cellulis oblongis. Perich. exserta.

133. N. trichomitrion C. Müll.; *monoica;* cespites altiusculi duri lati virides; caulis repens; rami erecti crassiusculi densifolii duri, *breviter pinnatim ramulosi, ditissime fertiles;* folia caulina appressa, humore patula, e *basi subcordatâ ovato-acuminata, integerrima, parum plicata, margine ubique valde revoluto, nervo obsoleto*, cellulis oblongis pallidis rectis, alaribus ad basin solam

rhomboidalibus quadratis obscuris; perich. convolutacea lanceolato-acuminata, longius laxius reticulata pallida, exserta, theca in ped. *parum exserto flavido laevi* erecta *anguste cylindrico-oblonga microstoma fusca tenella exannulata*, operc. *conico-acuminato recto;* calyptra majuscula straminea *pilosa;* perist. simplicis dentes *anguste lanceolati* albidi *laeves* leviter articulati linea media tenui exarati.

Lasia trichomitrion Brid. II. p. 201. — *Leptodon trichomitrion* Mohr. Obs. — *Pterigynandrum trichomitrion* Hdw. Sp. Musc. p. 82. t. 16. — *Pterogonium trichomitrion* Schw. Suppl. I. I. p. 107. — *Hypnum Saladinianum* Neck. Meth. Musc. p. 162 ? ? ? — *H. micropodon* Brid. Musc. Rec. II. II. p. 151. — H. myosuroides, setis brevissimis. Dill. Musc. p. 551. t. 85. f. 18.

Patria. Per Americae septentrionalis partem majorem, arborea et vulgaris.

In Flandria e Bridelio primum lecta est a Saladin; maxime vero dubitamus. E vestigiis explicatis species distinctissima.

An huc pertinens?

1. **N. Californica** Hook. et Arn. (in Beechey's Voy. 1841. p. 162.); caulis cespitosus erectus digitalis pinnatus undique foliosus, ramis brevibus perfecte patentibus; folia undique divergentia erecto-patentia nitida membranacea, ovata s. oblongo-ovata breviter acuminata, modice concava, omnino integerrima, basi obscure uninervia, margine revoluta, minutissime areolata veluti punctulata; perich. arcte imbricata convoluta, inferiora ovata acuminata, superiora elongata acuminatissima, omnia enervia pellucida; thecae in ped. lateralibus perichaetio fere omnino inclusis exsertae erectae v. oblique ellipticae rufo-fuscae, operc. rostrato basi conico, calyptra gracili fere subulata, hinc longitudinaliter fissa; perist. ext. d. subulati latius articulati, int. e ciliis octo (?) filiformibus flavis, c. ext. alternantibus, basi membrana reticulata brevissima unitis compositi. †.

Patria. California: Lay et Collie.

Subsectio V. **Leptodon** Brid. II. p. 197. — Caulis *compressus, ramis plus minus involutis v. incurvis, foliis rotundato-obtusis*, rotundato-areolatis. Perich. exserta.

134. **N. Smithii** C. Müll.; *dioica;* caulis primarius repens, secundarius procumbens compressus *elatus basi longiuscula indivisa, sursum breviter bipinnatus plumaeformis, rami densissime approximati* breves apice convoluti, viridissimi rigidissimi duri; folia caulina dense imbricata ovato-ligulata obtusa integerrima implana caviuscula, margine inferne revoluto, nervo ad medium producto viridi, cellulis rotundatis mollibus chlorophyllosis; perichaetia longiuscule exserta pallida, paraphysibus multis cellulosis longis, foliis late vaginantibus lanceolato-acuminatis, acumine subloriformi longiusculo obtuso, cellulis tenuioribus pallidioribus, nervo in acumen evanescente; theca in ped. perbrevi emerso flavido curvulo elliptica fusca leptodermis, exannulata, calyptra dimidiata brevis longe pilosa, operc. breviter conico recto; perist. simplicis d. ext. elongate lanceolato-acuminati albidi rugulosi, remote articulati, linea media fissiles, perist. internum: membrana brevissima.

Hookeria convoluta Spr. Syst. Veg. IV. II. p. 324. — *Leptodon Smithii* Mohr. Obs. p. 27. — Brid. II. p. 197. — *Lasia Smithii* Brid. Mant. Musc. p. 133. — *Pterigynandrum Smithii* Brid. Sp. Musc. p. 140. — *Pterogonium Smithii* Sw. in Schrad. Journ. II. p. 173. — Schw. Suppl. II. I. p. 31. t. 109. — *Orthotrichum Smithii* Brid. Musc. Rec. II. II. p. 33. — *Pilotrichum Smithii* P. B. Prodr. p. 83. — *Polytrichum Smithii* Hull. 249. — *Neckera bipinnata* Schl. Crypt. Helv. Cent. IV. n. 22. — *Hypnum Smithii* Dicks. Fasc. II. Crypt. p. 10. t. 5. f. 4. — *H. cincinnatum* Savi Viagg. p. 209. t. 6. ex Savi Fl. Pis. 2. p. 441.

Patria. Ad arbores et rupes Europae meridionalis; in Bavaria circa Hassellohe, in Tiroli meridionali atque Helvetia et inde per totam Italiam; ex oris Istriae per Dalmatiam usque ad Macedoniam, Graeciam, Asiam minorem et ab oris Africae borealis ad Prom. b. spei; ex Helvetia porro per Galliam meridionalem ad Hispaniam et in Anglia australi, ubi in Devonshire vulgatissima. — *Vere.*

Pulcherrima species et ramis convolutis *Helicophyllum* in memoriam redigentibus primo visu ab omnibus muscis discernenda.

135. **N. longipedunculata** C. Müll.; *dioica;* caulis secundarius humilis, basi brevi indivisa, sursum breviter *simpliciter pinnatus* viridissimus, ramis erecto-patentibus *haud involutis;* folia caulina *N. Smithii*, nervo crasso pallido flexuoso, apice saepe fuscato; theca in ped. *longiuscule exserto erecto;* perist. internum: membrana brevissima.

Leptodon longisetus Mont. Hist. d. Il. Canar. p. 20.

Patria. Teneriffa.

A *N. Smithii* simillima caracteribus designatis certe distare videtur. Operculum et calyptram haud vidimus.

136. **N. Pluvini** Brid. (in Steudel. Nomencl. Crypt. p. 295.); caulis primarius longe repens, secundarius *brevis tener mollis, ramis erecto-patentibus haud vel vix involutis subsimplicissimis simpliciter pinnatus* compressus; folia caulina sordide viridia, *mollia*, cellulis rotundis *diaphanis.*

Pilotrichum Pluvini Brid. II. p. 260.

Patria. India Orientalis: De Pluvin 1784.

A *N. Smithii* proxima vestigiis explicatis certe differt et species pulchella, adhuc sterilis tantum nota.

137. **N. flexuosa** Harvey (Hook. Ic. Pl. Rar. t. 21. f. 3.); caulis *pendulus elongatus* gracilis *flaccidus, ramis remotis brevibus simplicibus vel elongatis pinnatis subcurvatis flaccidis,* apicibus involutis 1—2 pinnatus, luteoviridis, subcompressus; folia caulina *e basi angustiore* ligulato-obtusa, *obtusissime et brevissime acuminata,* margine *ubique maxime* revoluto, cellulis *ellipticis rhomboidalibus subincrassatis;* perichaetia emersa, foliis lanceolato-acuminatis; theca immersa oblonga.

C. diagnosi in Lond. Journ. of bot. 1840. p. 14. — *Leptodon filiformis* Schimp. in schedulis.

Patria. India Orientalis, Calcutta: Hb. Schimp. Nepal: Wallich.

A *N. Smithii* theca immersa, a *N. Pluvini* simillima notis cursive impressis refugit.

Leucodon incertus.

Leucodon rufescens Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 712.); caulis assurgens ramosus dense foliosus fuscus; folia imbricata erecto-patentia oblonga longissime acuminata concava, apicem versus remote serrulata, enervia, lutescentia v. rufescentia, cellulis linearibus confertissimis; perich. ovata, longissime acuminata, concava, apicem versus serrata; theca in ped. 8—10 lineas longo apice incrassato laevi purpureo erecta oblonga laevis brunnea, ore contracta atro-fusca; perist. simplicis dentes membranacei breves erecti teneri albidi lanceolati perforati basi connati. †.

Patria. Java: Reinwardt.

Subsectio VI. **Spiridens** Nees ab Es. Nov. Act. XI. I. p. 143. — Caulis pleurocarpicus procerus pinnatim parce divisus robustissimus *squarrosifolius*, foliis *basi vaginantibus*, *inde reflexis*, late lanceolatis *limbatis*, rotundate areolatis. Theca emersa.

Patria. Java, Australia.

Cyrtopodi generis *Pilotrichi* sectio affinis.

138. **N. Reinwardti** C. Müll.; dioica; stipes crassus firmus lignosus fragilis robustissime foliosus longissimus 1—2 pedalis, junior simplicissimus, senior ramis similibus robustissimis crassissimis patentibus subpinnatus; folia maxime squarrosa robustissima et maxime scariosa, lutescentia, e basi longa erecta vaginante, e cellulis tenerrimis pellucidis angustissime linearibus reticulata, molli subito reflexa, longe latissime lanceolato-acuminata, carinata, limbo supra basin oriundo usque ad apicem producto incrassato lato grosse remote argute serrato flavido limitata, nervo in cuspidem serratum crassum exeunte valido flavido, superne remote dentato, cellulis incrassatis scariosis rotundatis densis; perich. multo minora, reflexiuscula, late vaginantia, nervo excedente longissime cuspidata, ad cuspidem tantum remote dentata v. inte-

gerrima, elongate anguste areolata, immarginata; theca subemersa magna, turgide oblonga, saepius arcuata, pachydermis fusca, exannulata, operc. intense rubro conico acute acuminato incurvo, calyptra cucullata fuscidula glabra, pedunculo perbrevi ad basin paraphysibus numerosis longis simplicibus cincto; perist. d. ext. longissimi anguste lanceolato-acuminati, arcte trabeculati, linea media obsoleta, lutescentes, siccitate in spiram contorti, int. in membrana altiuscula reticulata angustiores membranacei albidi dense articulati, carinati, perforati.

Spiridens Reinwardti Nees ab Es. Nov. Act. XI. I. p. 143. t. 17. — Brid. II. p. 280. — Schw. Suppl. II. 2. p. 146. t. 147. — Hook. Bot. Miscell. I. t. 1; ic. optima!

Patria. In summo monte ignivomo insulae Tidor in Archipelago Moluccarum minorum: Reinwardt 1820.

Muscus omnium pulcherrimus, giganteus, florae Indicae ornatus optimus.

139. **N. Balfouriana** C. Müll.; *N. Reinwardti* simillima, sed planta angustior gracilior 3—6 uncialis, folia anguste marginata, remotissime dentata, theca ovato-cylindracea. †.

Spiridens Balfourianus Grev. Ann. and Mag. of Nat. Hist. 1848. p. 326. t. 18.

Patria. Tahiti: Dr. Sibbold.

Sectio VII. **Climacium** Web. et Mohr. Caulis primarius repens, secundarius pleurocarpicus elatus, *primum flagelliformis, apice fasciculatim dendroideo-ramosus, ramis undique foliosis*, folia ovata elongate areolata. Theca exserta.

Patria. Europa, Nova Hollandia.

Pterobryo generis *Pilotrichi* sectio affinis.

140. **N. dendroides** Brid. (Musc. Rec. II. II. p. 15.); *dioica;* caulis primarius longe repens; rami erecti plures, primum flagelliformes, dein stipite longo foliis squamaeformibus obtecto et apice ramulis subsimplicissimis densifoliis longiusculis crassis attenuatis pallide viridibus dendroideo-divisi, ditissime fructiferi; folia caulina *e basi late auriculato-cordata ovato-oblonga ligulato-obtusa,*

apice grosse serrata, margine erecto, nervo valido ante apicem tenuiter evanido, cellulis *pellucidis laxiusculis mollibus leptodermibus, ad alas basilares laxioribus teneris;* perich. longe vaginantia pallida, longiuscule lanceolato-acuminata, elongate laxe pellucide reticulata enervia; theca in ped. longiusculo *purpureo* laevi erecta *cylindracea paulisper cernua exannulata purpurea,* operc. *conico-acuminato nitide purpureo, in columella exserta arcte persistente;* perist. pulcherrimi d. ext. *longe late lanceolato-acuminati dense trabeculati purpurei,* interni aequilongi *lati dentiformes, remote articulati basii rugulosi, medio maxime hiantes subscalares;* calyptra angustissima, thecam superans et apicem pedunculi includens pallida laevis.

Climacium dendroides Web. et Mohr. Schwed. Reise p. 96 et Bot. Taschb. p. 252. t. 10. f. 2. — Bryol. Europ. Fasc XVI. c. tab. — Brid. II. p. 271. — *Leskea dendroides* Hdw. Sp. Musc. p. 228. — *Hypnum dendroides* L. Sp. Pl. p. 1593. — H. dendroides sericeum setis et capsulis longioribus erectis. Dill. Musc. p. 313. t. 40. f. 48.

β. Americanum; ramis julaceo-teretibus; cellulis foliorum magis acutiorum brevioribus magis incrassatis. *Climacium Americanum* Brid. II. p. 273.

Patria. Per totam Europam et var. *β.* per totam Americam septentrionalem, in locis umbrosis graminosis uliginosis v. humidis. — *Hyeme et primo* vere, sed rarissime fertilis.

E pulcherrimis muscis Europaeis.

141. **N. sulcata** C. Müll.; *dioica? N. dendroidi* similis, sed *rami divisionum pro more iterum divisi;* folia densa, quadrifariam imbricata, caulina inferiora sparsa, *ex ovato longe acuminata,* ramea duplo triplove minora e basi cordata *oblonga, acutiuscula,* concava, *apicem versus eroso-denticulata,* siccitate striolata, pellucida pallide viridia, basi fusca, nervo *crasso ad apicem pertingente,* fusco, cellulis oblongis, basilaribus longioribus; perich. oblongo-lanceolata acuminata; theca in ped. *brevi aurantiaco longius cylindrica* erecta aequalis *annulata,*

perc. conico-acuminato recto, calyptra anguste cucullata elongata; perist. d. ext. lanceolati acuti dense trabeculati badii, interni *breviores linea media haud secedente exarati.* †.

Leskea sulcata Schw. Suppl. III. II. I. t. 270. — *Climacium sulcatum* Brid. II. p. 274. — *Leskea sulcata* Hook. Musc. Exot. t. 164.

Patria. Nova Hollandia, ad portum Jackson: R. Brown.

A *N. dendroide* eximie affini notis laudatis facile differt.

Sectio VIII. **Pseudopilotrichum.** Caulis primarius repens, secundarius pleurocarpicus *plus minus teres*, pendulus elongatus pinnatus, rarius decumbens; folia *basi auriculata*, laevia v. papillosa, lineari-areolata. Theca exserta.

Pstria. Terrae calidae et tropicae Asiae, Africae, Americae et Australiae.

Meteorio generis *Pilotrichi* sectio similis.

Subsectio I. **Orthostichella.** Folia in series distincte rectas disposita, e cellulis laevibus composita.

a. *Folia uninervia.*

142. **N. longipes** C. Müll.; *dioica;* caulis repens filiformis nudus, rami erecti pusilli, supra basin brevissimam subfoliosam ramulis simplicibus brevibus pinnati, molles, pallide virides pentagoni *tenues*; folia caulina in series quinque tortas disposita, densa, *anguste cymbiformi-oblongo-acuminata*, basi subrotundata, subplicata, breviuscula, margine erecto, ad *acumen dorso impressum planiuscule revoluto*, integerrimo, nervo *tenui unico excurrente*, cellulis brevissimis angustissimis pellucide viridibus mollibus viridi-punctulatis; perich. subvaginantia longe lanceolato-acuminata; theca in ped. mediocri purpurascente laevi erecta ovali-oblonga microstoma, exannulata, operc. conico obliquiuscule subulato, calyptra dimidiata brevis pilosa; perist. *Pilotrichi filicini.*

Pilotrichum longipes Mont. in litt. — *Isothecium tetrastichum* Brid. II. p. 378? — *H. quadrangulare* Schw. Suppl. I. II. p. 211, a Richard in Guiana collectum?

apice grosse serrata, margine erecto, nervo valido ante apicem tenuiter evanido, cellulis *pellucidis laxiusculis mollibus leptodermibus, ad alas basilares laxioribus teneris;* perich. longe vaginantia pallida, longiuscule lanceolato-acuminata, elongate laxe pellucide reticulata enervia; theca in ped. longiusculo *purpureo* laevi erecta *cylindracea paulisper cernua exannulata purpurea,* operc. *conico-acuminato nitide purpureo, in columella exserta arcte persistente;* perist. pulcherrimi d. ext. *longe late lanceolato-acuminati dense trabeculati purpurei,* interni aequilongi *lati dentiformes, remote articulati badii rugulosi, medio maxime hiantes subscalares;* calyptra angustissima, thecam superans et apicem pedunculi includens pallida laevis.

Climacium dendroides Web. et Mohr. Schwed. Reise p. 96 et Bot. Taschb. p. 252. t. 10. f. 2. — Bryol. Europ. Fasc. XVI. c. tab. — Brid. II. p. 271. — *Leskea dendroides* Hdw. Sp. Musc. p. 228. — *Hypnum dendroides* L. Sp. Pl. p. 1593. — H. dendroides sericeum setis et capsulis longioribus erectis. Dill. Musc. p. 313. t. 40. f. 48.

β. Americanum; ramis julaceo-teretibus; cellulis foliorum magis acutiorum brevioribus magis incrassatis. *Climacium Americanum* Brid. II. p. 273.

Patria. Per totam Europam et var. *β.* per totam Americam septentrionalem, in locis umbrosis graminosis uliginosis v. humidis. — *Hyeme et primo vere,* sed rarissime fertilis.

E pulcherrimis muscis Europaeis.

141. **N. sulcata** C. Müll.; *dioica? N. dendroidi* similis, sed *rami divisionum pro more iterum divisi;* folia densa, quadrifariam imbricata, caulina inferiora sparsa, *ex ovato longe acuminata,* ramea duplo triplove minora e basi cordata *oblonga, acutiuscula,* concava, *apicem versus eroso-denticulata,* siccitate striolata, pellucida pallide viridia, basi fusca, nervo *crasso ad apicem pertingente,* fusco, cellulis oblongis, basilaribus longioribus; perich. oblongo-lanceolata acuminata; theca in ped. *brevi aurantiaco longius cylindrica* erecta aequalis *annulata,*

operc. conico-acuminato recto, calyptra anguste cucullata elongata; perist. d. ext. lanceolati acuti dense trabeculati badii, interni *breviores linea media haud secedente exarati.* †.

Leskea sulcata Schw. Suppl. III. II. I. t. 270. — *Climacium sulcatum* Brid. II. p. 274. — *Leskea sulcata* Hook. Musc. Exot. t. 164.

Patria. Nova Hollandia, ad portum Jackson: R. Brown.

A *N. dendroide* eximie affini notis laudatis facile differt.

Sectio VIII. **Pseudopilotrichum.** Caulis primarius repens, secundarius pleurocarpicus *plus minus teres*, pendulus elongatus pinnatus, rarius decumbens; folia *basi auriculata*, laevia v. papillosa, lineari-areolata. Theca exserta.

Pstria. Terrae calidae et tropicae Asiae, Africae, Americae et Australiae.

Meteorio generis *Pilotrichi* sectio similis.

Subsectio I. **Orthostichella.** Folia in series distincte rectas disposita, e cellulis laevibus composita.

a. *Folia uninervia.*

142. **N. longipes** C. Müll.; *dioica;* caulis repens filiformis nudus, rami erecti pusilli, supra basin brevissimam subfoliosam ramulis simplicibus brevibus pinnati, molles, pallide virides pentagoni *tenues*; folia caulina in series quinque tortas disposita, densa, *anguste cymbiformi-oblongo-acuminata*, basi subrotundata, subplicata, breviuscula, margine erecto, ad *acumen dorso impressum planiuscule revoluto*, integerrimo, nervo *tenui unico excurrente*, cellulis brevissimis angustissimis pellucide viridibus mollibus viridi-punctulatis; perich. subvaginantia longe lanceolato-acuminata; theca in ped. mediocri purpurascente laevi erecta ovali-oblonga microstoma, exannulata, operc. conico obliquiuscule subulato, calyptra dimidiata brevis pilosa; perist. *Pilotrichi filicini.*

Pilotrichum longipes Mont. in litt. — *Isothecium tetrastichum* Brid. II. p. 378? — *H. quadrangulare* Schw. Suppl. I. II. p. 211, a Richard in Guiana collectum?

apice grosse serrata, margine erecto, nervo valido ante apicem tenuiter evanido, cellulis *pellucidis laxiusculis mollibus leptodermibus, ad alas basilares laxioribus teneris;* perich. longe vaginantia pallida, longiuscule lanceolato-acuminata, elongate laxe pellucide reticulata enervia; theca in ped. longiusculo *purpureo* laevi erecta *cylindracea paulisper cernua exannulata purpurea,* operc. *conico-acuminato nitide purpureo, in columella exserta arcte persistente;* perist. pulcherrimi d. ext. *longe late lanceolato-acuminati dense trabeculati purpurei,* interni aequilongi *lati dentiformes, remote articulati badii rugulosi, medio maxime hiantes subscalares;* calyptra angustissima, thecam superans et apicem pedunculi includens pallida laevis.

Climacium dendroides Web. et Mohr. Schwed. Reise p. 96 et Bot. Taschb. p. 252. t. 10. f. 2. — Bryol. Europ. Fasc XVI c. tab. — Brid. II. p. 271. — *Leskea dendroides* Hdw. Sp. Musc. p. 228. — *Hypnum dendroides* L. Sp. Pl. p. 1593. — H. dendroides sericeum setis et capsulis longioribus erectis. Dill. Musc. p. 313. t. 40. f. 48.

β. Americanum; ramis julaceo-teretibus; cellulis foliorum magis acutiorum brevioribus magis incrassatis. *Climacium Americanum* Brid. II. p. 273.

Patria. Per totam Europam et var. *β.* per totam Americam septentrionalem, in locis umbrosis graminosis uliginosis v. humidis. — *Hyeme et primo vere,* sed rarissime fertilis.

E pulcherrimis muscis Europaeis.

141. **N. sulcata** C. Müll.; *dioica? N. dendroidi* similis, sed *rami divisionum pro more iterum divisi;* folia densa, quadrifariam imbricata, caulina inferiora sparsa, *ex ovato longe acuminata,* ramea duplo triplove minora e basi cordata *oblonga, acutiuscula,* concava, *apicem versus eroso-denticulata,* siccitate striolata, pellucida pallide viridia, basi fusca, nervo *crasso ad apicem pertingente,* fusco, cellulis oblongis, basilaribus longioribus; perich. oblongo-lanceolata acuminata; theca in ped. *brevi aurantiaco longius cylindrica* erecta aequalis *annulata,*

operc. conico-acuminato recto, calyptra anguste cucullata elongata; perist. d. ext. lanceolati acuti dense trabeculati badii, interni *breviores linea media haud secedente exarati.* †.

Leskea sulcata Schw. Suppl. III. II. I. t. 270. — *Climacium sulcatum* Brid. II. p. 274. — *Leskea sulcata* Hook. Musc. Exot. t. 164.

Patria. Nova Hollandia, ad portum Jackson: R. Brown.

A *N. dendroide* eximie affini notis laudatis facile differt.

Sectio VIII. **Pseudopilotrichum.** Caulis primarius repens, secundarius pleurocarpicus *plus minus teres*, pendulus elongatus pinnatus, rarius decumbens; folia *basi auriculata*, laevia v. papillosa, lineari-areolata. Theca exserta.

Pstria. Terrae calidae et tropicae Asiae, Africae, Americae et Australiae.

Meteorio generis *Pilotrichi* sectio similis.

Subsectio I. **Orthostichella.** Folia in series distincte rectas disposita, e cellulis laevibus composita.

a. *Folia uninervia.*

142. N. longipes C. Müll.; *dioica;* caulis repens filiformis nudus, rami erecti pusilli, supra basin brevissimam subfoliosam ramulis simplicibus brevibus pinnati, molles, pallide virides pentagoni *tenues*; folia caulina in series quinque tortas disposita, densa, *anguste cymbiformi-oblongo-acuminata*, basi subrotundata, subplicata, breviuscula, margine erecto, ad *acumen dorso impressum planiuscule revoluto*, integerrimo, nervo *tenui unico excurrente*, cellulis brevissimis angustissimis pellucide viridibus mollibus viridi-punctulatis; perich. subvaginantia longe lanceolato-acuminata; theca in ped. mediocri purpurascente laevi erecta ovali-oblonga microstoma, exannulata, operc. conico obliquiuscule subulato, calyptra dimidiata brevis pilosa; perist. *Pilotrichi filicini.*

Pilotrichum longipes Mont. in litt. — *Isothecium tetrastichum* Brid. II. p. 378? — *H. quadrangulare* Schw. Suppl. I. II. p. 211, a Richard in Guiana collectum?

apice grosse serrata, margine erecto, nervo valido ante apicem tenuiter evanido, cellulis *pellucidis laxiusculis mollibus leptodermibus, ad alas basilares laxioribus teneris;* perich. longe vaginantia pallida, longiuscule lanceolato-acuminata, elongate laxe pellucide reticulata enervia; theca in ped. longiusculo *purpureo* laevi erecta *cylindracea paulisper cernua exannulata purpurea*, operc. *conico-acuminato nitide purpureo, in columella exserta arctius persistente;* perist. pulcherrimi d. ext. *longe late lanceolato-acuminati dense trabeculati purpurei*, interni aequilongi *lati dentiformes, remote articulati badii rugulosi, medio maxime hiantes subscalares;* calyptra angustissima, thecam superans et apicem pedunculi includens pallida laevis.

Climacium dendroides Web. et Mohr. Schwed. Reise p. 96 et Bot. Taschb. p. 252. t. 10. f. 2. — Bryol. Europ. Fasc XVI. c. tab. — Brid. II. p. 271. — *Leskea dendroides* Hdw. Sp. Musc. p. 228. — *Hypnum dendroides* L. Sp. Pl. p. 1593. — H. dendroides sericeum setis et capsulis longioribus erectis. Dill. Musc. p. 313. t. 40. f. 48.

β. Americanum; ramis julaceo-teretibus; cellulis foliorum magis acutiorum brevioribus magis incrassatis. *Climacium Americanum* Brid. II. p. 273.

Patria. Per totam Europam et var. *β.* per totam Americam septentrionalem, in locis umbrosis graminosis uliginosis v. humidis. — *Hyeme et primo* vere, sed rarissime fertilis.

E pulcherrimis muscis Europaeis.

141. **N. sulcata** C. Müll.; *dioica? N. dendroidi* similis, sed *rami divisionum pro more iterum divisi;* folia densa, quadrifariam imbricata, caulina inferiora sparsa, *ex ovato longe acuminata*, ramea duplo triplove minora e basi cordata *oblonga, acutiuscula*, concava, *apicem versus eroso-denticulata*, siccitate striolata, pellucida pallide viridia, basi fusca, nervo *crasso ad apicem pertingente*, fusco, cellulis oblongis, basilaribus longioribus; perich. oblongo-lanceolata acuminata; theca in ped. *brevi aurantiaco longius cylindrica* erecta aequalis *annulata*,

operc. conico-acuminato recto, calyptra anguste cucullata elongata; perist. d. ext. lanceolati acuti dense trabeculati badii, interni *breviores linea media haud secedente exarati.* †.

Leskea sulcata Schw. Suppl. III. II. I. t. 270. — *Climacium sulcatum* Brid. II. p. 274. — *Leskea sulcata* Hook. Musc. Exot. t. 164.

Patria. Nova Hollandia, ad portum Jackson: R. Brown.

A *N. dendroide* eximie affini notis laudatis facile differt.

Sectio VIII. **Pseudopilotrichum.** Caulis primarius repens, secundarius pleurocarpicus *plus minus teres*, pendulus elongatus pinnatus, rarius decumbens; folia *basi auriculata*, laevia v. papillosa, lineari-areolata. Theca exserta.

Patria. Terrae calidae et tropicae Asiae, Africae, Americae et Australiae.

Meteorio generis *Pilotrichi* sectio similis.

Subsectio I. **Orthostichella.** Folia in series distincte rectas disposita, e cellulis laevibus composita.

a. *Folia uninervia.*

142. **N. longipes** C. Müll.; *dioica;* caulis repens filiformis nudus, rami erecti pusilli, supra basin brevissimam subfoliosam ramulis simplicibus brevibus pinnati, molles, pallide virides pentagoni *tenues*; folia caulina in series quinque tortas disposita, densa, *anguste cymbiformi-oblongo-acuminata*, basi subrotundata, subplicata, breviuscula, margine erecto, ad *acumen dorso impressum planiuscule revoluto*, integerrimo, nervo *tenui unico excurrente*, cellulis brevissimis angustissimis pellucide viridibus mollibus viridi-punctulatis; perich. subvaginantia longe lanceolato-acuminata; theca in ped. mediocri purpurascente laevi erecta ovali-oblonga microstoma, exannulata, operc. conico obliquiuscule subulato, calyptra dimidiata brevis pilosa; perist. *Pilotrichi filicini.*

Pilotrichum longipes Mont. in litt. — *Isothecium tetrastichum* Brid. II. p. 378? — *H. quadrangulare* Schw. Suppl. I. II. p. 211, a Richard in Guiana collectum?

Patria. Guiana: Hb. Mont. Insula Trinidad Antillarum, Uraruga et Carani Woods, 20. Oct. 1847: Crüger pulchre fertilem legit.

A *N. tetragona* notis laudatis jam facile distinguitur; ex foliorum forma *Pilotricho filicino* valde affinis.

143. **N. quinquefaria** C. Müll.; caulis longissime repens, ramis latiusculis crassiusculis longissime pendulis simpliciter pinnatis, ramulis brevibus *rotundato - obtusis* v. cuspidulatis patenti - divergentibus v. divergenti-divaricatis, nitidis flavo - viridibus, aureo - lutescentibus v. pallidioribus compressis praeditis, ramis ad caulem primarium simplicibus longiusculis curvatis mixtis; folia distincte quinquefaria dense conferta, *longiuscule anguste oblongo-lanceolata breviter v. longius acute acuminata,* marginibus summo apice involutaceis, integerrimis, cymbiformia, pallida v. lutea, longitudinaliter biplicata, infima basi paulisper excavata, auriculis parum evolutis, *ad marginem basis cellulis alaribus multis late haud orbiculariter dispositis, planis v. vix ventrosis incrassatis flavescentibus, nervo tenuissimo longiusculo integro flavido.*

Isothecium pentastichum C. Müll. Linn. XXI. p. 196, non Bridel! — *Leskea? pentasticha* Hsch. in Musc. Sieber. No. 29, quoad inscriptionem alteram ex insula Mauritii, quoad alteram e Nova Hollandia, patria c. Americana certe commutata! — Muscus terrestris, repens minor, cujus ramuli foliis multis et minimis seriatim quadrato ordine dispositis cinguntur. Dill. Musc. p. 335. t. 43. f. 73? — *Hypnum terrestre* Aubl. Pl. Guian. IV. p. 962?

Patria. Surinam: Kegel et alii; insula Trinidad Antillarum minorum: Crüger copiose legit. E Guatemala comm. Kegel.

Caracteribus datis propria species, adhuc sterilis nota.

144. **N. tenuis** C. Müll.; *dioica?* ramus communis in ramos multos pendulos flexuosos *tenues,* ramulis *brevibus teneris tenuiter attenuatis flexuosis decurvatis v. ascendentibus sordide viridibus* nitidis praeditos, divisus; folia caulina quinquefaria *in series ob ramulos teneros indistinctas rectas* disposita, e basi *vix excavata et vix au-*

riculata cellulis alaribus marginalibus minutis planis paucis flavidis incrassatis praeditâ anguste oblonga, longiuscule acuminata, marginibus integerrimis superne parum involutaceis, nervo tenui elongato subfurcato; perich. pauca subconvolutacea longius acuminata, superne plicata et marginata; theca in ped. *perbrevi thecam vix aequante paraphysibus longe exsertis cincto majuscula oblonga.*

Patria. Brasilia, pr. Rio Janeiro.

N. molli habitu subaffinis, et a *N. quinquefaria* primo adspectu teneritate partium omnium recedens.

145. N. viridis C. Müll.; *dioica;* ramus communis brevis, in ramulos *graciles longiusculos parce partitos viridissimos* nitidos *sciuroideo-attenuatos* inaequales *maxime decurvatos multo teneriores rigidiusculos compressiusculos* divisus; folia caulina quinquefarie in series ob teneritatem ramorum saepe indistinctas tortas disposita, dense conferta, *e basi vix excavata et vix auriculata, cellulis alaribus paucissimis flavidulis basilaribus* praeditâ ovato-oblonga breviter acuminata, *tenera, nervo obsoleto furcato,* marginibus superne parum involutaceis integris; perich. angustiora longe acuminata.

Patria. Venezuela, Caracas: Moritz. Coll. I. Thorreyana Hamburgensis No. 38.

A *N. versicolore* colore viridissimo, statura teneriore et notis caeteris cursive impressis distat.

b. *Folia obsolete binervia v. enervia.*

146. N. tetragona C. Müll.; caulis repens, ramis brevibus *latiusculis* compressis inaequaliter pinnatis, ramulis quinquefariis apice rotundato-obtusis crassiusculis, pallide viridibus nitidis, plerumque simplicissimis patenti-divergentibus; folia caulina dense imbricata, e basi vix auriculata cellulis alaribus paucissimis veluti obsoletis planis *flavidis* praeditâ *late oblonga,* apice subito acumine brevi ob margines utrinque involutos canaliculato terminata, vix semel obsolete plicata, *enervia.*

Isothecium tetragonum Brid. II. p. 377. — *Hypnum tetragonum* Sw. Prodr. Fl. Ind. Occ. p. 142. — Hdw. Sp. Muscor. p. 246. t. 63. — ? *Pterigynandrum quadrifarium* Brid. II. p. 194? vel *P. aureum* Brid. Mant. Musc. p. 101? e Jamaika.

Patria. Jamaika, ubi prope cacumina montium legit Swartz. Venezuela, Cocollar: Moritz.

A *N. quinquefaria* primo visu statura humili aliter pinnata et ramulis crassiusculis longiusculis differt. Folia haud tetrasticha!

147. **N. pachygaster** C. Müll. caulis repens; ramis *longissime pendulis rigidis teneris rectis nec genuflexis, ramulis divergenti-divaricatis* pinnatis inaequalibus *teneris attenuatis rigidis decurvatis, pallide viridibus,* nitidis, *compressiusculis;* folia quinquefarie in series *obliquas subspirales laxe vesiculose imbricate* disposita, *e basi panduraeformi-excavata auriculis parvis et cellulis alaribus obsoletis paucissimis flavidis* praeditâ subito *latissime ovata, acumine brevi terminata,* marginibus superne parum involutis, maxime ventricosa cochleariformia, obsolete binervia.

Patria. Venezuela, in montibus nivosis prov. Meridae: Moritz.

A *N. cochlearifolia* et *molli* notis cursive impressis, primo visu foliis distincte et torte quinquefariis differt.

148. **N. hexasticha** C. Müll.; *N. pachygastri* simillima, sed rami *tenuissimi distincte pentagoni, haud compressi,* folia *multo minora, e basi suberecta* parum auriculata cellulis alaribus vix praeditâ *subito* maxime ventricosa, obsolete binervia.

Isothecium hexastichum Brid. II. p. 380. — *Hypnum hexastichum* Schw. Suppl. I. II. p. 210.

Patria. Hispaniola: Thouin. Cuba, S. Yago, Mont Liban, 3500′ altitud: Funck et Schlim Majo 1844. Coll. Linden. No. 2198.

149. **N. rigida** C. Müll.; *dioica;* ramus communis brevis, *interdum valde elongatus,* in ramulos *longitudine valde inaequales subfasciculatos* filiformes attenuatos de-

curvatos *rigidos tereti-pentagonos haud compressos pallide virides* divisus; folia dense conferta, *apicibus tamen haud appressis sed patentibus, igitur parum laxe* in series quinque tortas disposita, e basi *distincte panduraeformi-excavata,* vix auriculata, cellulis alaribus paucissimis flavidulis v. viridiusculis incrassatis basilaribus praedità *magis ovate cochleariformia* breviter acuminata, tenera, *obsolete binervia,* marginibus superne parum involutaceis integris; perich. convolutacea angusta acuminata; theca in ped. *perbrevi tenuissima minute oblonga;* perist. dentes ext. rigidi pallidi inaequaliter angusti, interni cilia rigida fragilia flavida longitudine fissa.

Neckera imbricata Hsch. in Musc. Mexic. Deppeanis.

Patria. Mexico: Hb. Miquel, Deppe.

A *N. viridi* proxima notis illustratis facile discernibilis.

150. **N. versicolor** C. Müll.; *dioica,* tenella; caulis longe repens, ramis breviusculis, in ramulos valde inaequales brevissimos v. longiores flexuosos parce dichotomos teretiusculos molles teneros obtusos v. attenuatos virides v. *lutescentes v. amoene aureos nitidos,* foliis saepius destructos subdendroideo-divisis; folia dense imbricata, in series quinque saepe distinctas tortas disposita, *panduraeformia,* ad auriculorum parvulorum basin cellulis alaribus paucis flavidis instructa, obsolete binervia, superne *cochleariformia, acute acuminata,* marginibus apice tantum summo involutaceis; perich. longiora angustiora parum exserta; theca in ped. perbrevi minute ovalis recta; perist. *N. mollis.*

Daltonia imbricata Spreng. Syst. Veget. IV. I. p. 187. — *Neckera imbricata* Schw. Suppl. II. II. 1. t. 165! p. 42; excl. Syn. Hedwig., Belvisian. et Bridelianis! — *Isothecium imbricatum* Brid. II. p. 379, e speciebus duabus diversis Brasiliensibus sterilibus incompletis et Owariensi unica incompleta compositum igitur delendum.

Patria. Brasilia, Rio Janeiro: Beyrich, Beske.

Fructum non observavimus. A *N. imbricata* vera vestigiis expositis certe differt.

151. **N. imbricata** Schw. (Suppl. II. II. 1. p. 42. t. 165.); tenuis pendula vage subpinnatim ramosa compressa densifolia, folia in series quinque obliquas arctissime imbricata, minuta, *perfecte cymbiformi-oblonga, nunquam panduraeformia, cavitate profunda ante apicem abrupta, acumine in apice folii veluti gibboso posito brevissimo,* margine erecto ad apicem plus minus involuto, ubique integerrimo, nervis binis brevissimis obsoletissimis pallidis, cellulis angustissime linearibus densissimis pallidis basi flavidis, alaribus vix ullis minute quadratis flavidis.

Schw. l. c., sed excl. tabula! — *Pilotrichum imbricatum* P. B. Prodr. p. 65 sub *Hypno? imbricato*! — Brid. II. p. 860, excl. Schwägr. icone! — *Isothecium pentastichum* Brid. II. p. 378. — *Hypnum pentastichum* Arn. Disp. p. 61.

Patria. Insula Bourbonis: Bory St. Vincent.

A *N. versicolore* notis cursive impressis certe distat. Fructus adhuc ignotus.

Species non satis notae.

1. **N. livens** C. Müll.; caulis pendulus subpinnato-fasciculatoque ramosus, folia quadrifariam (?), sed minus distincte, imbricata laxa, late ovata breviter acuminata, basi coarctata concava, interdum plica media nervum simulante sed basin folii non attingente, una alterave abbreviata laterali, viridia v. fusca, madore violaceo-fusca, enervia, cellulis anguste linearibus, alaribus multis laxius quadratis concoloribus. †.

Isothecium livens Brid. II. p. 380. — *Hypnum livens* Schw. Suppl. I. II. p. 211. Suppl. III. II. 2. t. 284.

Patria. Peruvia.

Species distincta, sed melius observanda. An revera enervis?

2. **Isothecium Thunbergii** Brid. (II. p. 381.); caulis decumbens divisus longiusculus, divisionibus vage ramosis; rami subsimplices, basi subnudi, teretes, recti; folia imbricata sexfaria cordato-lanceolata, concava, acuta, nervo duplici albido instructa, humiditate patula, sic-

citate cauli appressa, e rufo lutescentia, subviridia; perich. caulinis longiora angustiora; theca in ped. erecto brevissimo rufescente erecta obovata aequalis; perist. duplex albidum. †.

Hypnum Thunbergii Brid. Mant. Musc. p. 167.

Patria. Jamaica, unde Thunberg ad Jussieu 1788 misit; probabiliter arboreum.

Subsectio II. **Pilotrichella.** Folia in series indistinctas disposita, e cellulis laevibus composita.

a. *Folia enervia.*

α. Folia cymbiformia planiuscula.

152. N. flexilis C. Müll.; *dioica;* ramus communis in ramos *multos longe pendulos inaequaliter crassiusculos, ramulis brevibus crassioribus turgidis inaequalibus* parum flexuosis *decurvatis v. parum ascendentibus cuspidate attenuatis remotis* instructos firmos nitidos teretiusculos pallide virides, flavescentes et rufescentes divisus; folia e basi parum excavata *majuscule auriculata* et cellulis alaribus *in orbem majusculum subventricosum dispositis* incrassatis fuscis praeditâ latissime oblonga cymbiformia, acumine *brevissimo hamate reflexo terminata v. obtusiora,* marginibus superne latiuscule involutaceis, enervia; perich. convolutacea longius et recte acuminata; theca in ped. brevi ovalis, ore coarctata.

Pilotrichum turgidum C. Müll. Bot. Zeit. 1848. p. 767. — *Hypnum nigricans* Hmp. Linn. XX. p. 87. — *Isothecium flexile* Brid. II. p. 361. — *Hookeria flexilis* Sm. Trans. of Linn. Soc. IX. p. 281. — *Leskea flexilis* Hdw. Sp. Musc. p. 234. t. 58. — C. Müll. Linn. XIX. p. 215. — *Hypnum flexile* Sw. Prodr. Fl. Ind. Occ. p. 141!

Patria. Venezuela, prov. Caracas prope Galipan altitud. 5000′ Jan. 1845 leg. Funck et Schlim, in arboribus putridis. Coll. Linden. No. 371. Primus fertilem legit in prov. Caracas Moritz. In montibus summis Jamaicae australis primus legit Swartz.

Ramuli *Hypnum cuspidatum* in memoriam referunt. A *N. rufescente* subsimili notis datis facile distinguitur.

153. **N. longissima** C. Müll.; ramus pendulus longissimus valde flexuosus *crassiusculus horride foliosus*, rufescens, v. flavescens, ramulis crassioribus elongatis simplicibus; folia *subhorizontalia inordinate imbricata horrida*, e basi haud coarctata parum rotundato-auriculata et cellulis alaribus paucis planis incrassatis fuscidulis praeditâ late ovata *longissime* piliformi-acuminata, planiuscula, marginibus haud involutis *superne tantum subdenticulatis*, enervia.

Pilotrichum cirrhifolium Hsch. Fl. Bras. Fasc. I. p. 60. — *Isothecium tetragonum* var. *piligerum* Mont. Ann. d. sc. nat. 1839. XII. p. 54? — *Hypnum longissimum* Raddi Critt. Bras. 9. et Brid. II. p. 510. — *H. giganteum* Brid. olim.

Patria. Brasilia, in montibus ad Villam Ricam et in Serra d'Estrella: Martius et Raddi.

A *N. trichophora* simillima notis cursive impressis longe distat.

154. **N. trichophora** C. Müll.; caulis repens, ramis pendulis *compressiusculis, basi crassioribus et in ramulos tenuissimos filiformes valde flexuosos laxifolios dichotomos paucos* divisis, rufescenti-flavidis nitidis, *flaccidis*; folia *e basi haud excavata* parum auriculata et cellulis alaribus *paucis planis* incrassatis fuscidulis praeditâ *late ovata longe piliformi-acuminata, planiuscula, marginibus haud involutis ubique minute denticulatis, angustissime densissime elongate reticulata*, enervia, ramea majora, latiora, ramulina angustiora.

Isothecium? trichophorum Mont. Ann. d. sc. nat. 1843. XIX. p. 238.

Patria. Insulae Sandwich, ad cortic. arborum, *Radulae reflexae* N. et M. consors: Gaudichaud.

Notis datis nunquam confundenda et solitaria species et *N. longissimae* proxima.

β. Folia cochleariformia profunde concava.

155. **N. cochlearifolia** C. Müll.; *dioica*; ramus elongatus flexuosus flaccidus teneriusculus *rigidiusculus*, ramulis alternis *inaequaliter elongatis tenuissime attenua-*

tis, junioribus illis *N. mollis* similibus, deflexis flexuosis, pallescentibus, crassioribus, *saepe iterum divisis;* folia caulina *laxe imbricata squarrulosa*, e basi vix excavata *majuscule auriculata* cellulis alaribus flavidis ventrosis instructâ late ovata *cochleariformi-concava breviter apiculata*, marginibus superne parum involutaceis; perich. cylindraceo-convoluta exserta acuminata; theca in ped. *longiuscule exserto oblonga*, operculo conico-obliquo longiusculo, calyptra basi crenulata *pilosiuscula;* perist. robustius, interni cilia *filiformia subnodosa*, externos subaequantia rugulosa pallida.

Pilotrichum cochlearifolium C. Müll. Linn. XVII. p. 599.

Patria. Mexico: C. Ehrenberg.

A *N. molli* saepe commutata notis designatis longe refugit.

156. **N. turgescens** C. Müll.; *dioica; N. cochlearifoliae* proxima, *sed partibus omnibus robustissima turgida, ramis minus divisis haud attenuatis, sed teretiusculis crassissimis laxissime squarrulosis;* folia majora oblongiora, latere magis excavata, theca et calyptra praecedentis.

Patria. Mexico: C. Ehrenberg.

E structura interna varietas *N. cochlearifoliae* videtur, sed habitu longe refugit.

157. **N. mollis** C. Müll.; *dioica;* ramus elongatus *subgeniculato-flexuosus flaccidus mollis tener*, ramulis eleganter alternis *brevibus* erecto-patentibus vel divergenti-divaricatis *tenuibus* attenuatis flexuosis pallescenti-flavidis; folia caulina subdense imbricata parva oblonga obtusa vix auriculata, cellulis alaribus *paucis griseo-pallescentibus*, marginibus integerrimis apice involutis praedita, pallida; perich. infima late ovata obtusa, superiora longiuscule convolutaceo-lanceolata, *pedunculum fere includentia;* theca in ped. *perbrevi minutissime ovalis* subrecta, operculo conico oblique rostrato, calyptra laevi; perist parvum, internum e dentibus latiusculis carinatis basi connatis compositum.

Leskea mollis Hdw. Musc. Fr. IV. t. 40. — Brid. II. p. 28
Hypnum pendulum P. B. Prodr. p. 67.

Patria. Nova Seelandia: Banks.

158. **N. Cumingii** C. Müll.; *N. molli* simillima, parum robustior, folia robustiora majora obtusiora aurea, basi distinctius panduraeformi-excavata, cellulis alaribus *flavidis, ventricose paginam folii inferiorem* ... *tantibus.*

Patria. Chile: Cuming.

Caetera desunt, sed credibile est, notas discernentes alias pariter ostendere.

159. **N. phleoides** C. Müll.; *N. crassicauli* simillima, sed rami *multo tenuiores, Phlei spicam bene referentes obtusi, in apicem curvatum non producti;* folia caulina minora, *in acumen breve margine involutaceo subcucullatum* producta, *enervia.*

Hypnum phleoides Desvaux in Brid. II. p. 431.

Patria. Insula Bourbonis, in arborum cortice.

b. *Folia uninervia.*

160. **N. crassicaulis** C. Müll.; caulis repens, ramis *brevibus crassissimis teretibus subsimplicissimis curvatis vesiculoso-foliosis* pallescentibus, *ex apice coma brevi curviusculo caule multo tenuiore cylindraceo innovantibus;* folia magna, e basi parum excavata, inferne ad *auriculas parvas* cellulis alaribus laxis fuscis in orbem *majorem* dispositis praeditâ latissime ovata obtusa, *acumine longo late subulato denticulato terminata,* valde concava, nervo longo tenui evanido saepe furcato, e cellulis infima basi laxioribus fuscidulis superne pallidis v. *cyanescentibus* areolata.

Patria. Java: Junghuhn.

161. **N. nigricans** Nees ab Es. (Linn. XIX. 1846 p. 682.); caulis secundarius pendulus, ramis teretiusculis remotiusculis subcompressis *subtenuibus turgescentibus* brevibus simplicibus v. longioribus parum ramulosis, *viridi lutescentibus, dein nigricantibus,* nitidulis; foli

caulina sicca et madefacta appressâ, e basi *late auriculatâ latissime rotundato-ovata, apiculata*, integerrima, cochleariformi-concava, margine erecto, summo apice parum involuto, nervo tenuissimo ultra medium evanido, cellulis angustissime linearibus pallide viridibus, alaribus ad auriculas *ventricose impressis* multis laxiuscule quadratis granulosis subincrassatis viridiusculis.

Isothecium nigricans Brid. II. p. 363. — *Hypnum nigricans* Hook. in Kunth. Synops. Pl. Aequin. I. p. 64. — Schw. Suppl. III. II. 2. t. 284.

Patria. In sylvis Andium inter Pasto et Teindela prov. de los Pastos Americae aequinoctialis, alt. 1300 hexapodum: Humboldt et Bonpland. Mexico, pr. Xalapa: Deppe et Schiede.

162. N. filifera C. Müll.; caulis longe repens *vage ramosus*, ramis *pinnatis brevibus pallide viridibus, dein rufescentibus, teretiusculis subturgidis simplicibus, ramulis longissimis capillariformi-tenuissimis flagelliformibus confervoidibus axillaribus flexuoso-flaccidis viridibus, saepe copiosissimis et igitur glomera mollia longa formantibus;* folia caulina laxe imbricata, *e basi maxime et undulate auriculata,* cellulis alaribus *in orbem majusculum ventricosum* dispositis, *laxis magnis teneris pellucidis* praedita haud vel parum excavatâ latissime ovata, ad apicem undulatum acumine distincto breviusculo acuto terminata, marginibus integerrimis haud vel parum involutaceis, nervo longo tenuissimo, ante acumen evanescente integro; folia ramulorum flagelliformium *multo angustiora, e basi ob margines inferne valde suprevolutos excavata* minus auriculata et cellulis alaribus paucioribus minoribus planiusculis praeditâ anguste oblonga, *acumine longissimo torto terminata.*

Pilotrichum filiferum C. Müll. Bot. Zeit. 1848. p. 767.

Patria. Venezuela, prov. Merida prope Lagunetta circa Merida, altitud. 6500′: Funck et Schlim 1846. Septbr. sterile legerunt. Coll. Linden. No. 991. Arborea.

Ex habitu ramorum turgidorum simplicium brevium *N. liventi* affinis, sed notis cursive impressis distinctissima.

163. **N. rufescens** C. Müll.; caulis repens, ramis breviusculis *turgidis viridibus rufescentibus capillariis* parce divisis, acutiusculis; folia late oblonga *longissime acuminata*, apice obsolete denticulata, basi parum *auriculata*, cellulis alaribus ventricosis laxe parenchymaticis pachydermibus fuscis, nervo *tenuissimo elongato integro*.

Patria. Venezuela, prov. Carabobo, Cumbre de Valence, altitud. 5000': Funck et Schlim in Coll. Linden. No. 619 intermixt. 1846. Jan.

Subsectio III. **Papillaria.** Folia in series indistinctas disposita, e cellulis punctulatis papillosis composita.

a. *Caulis et rami capillares.*

164. **N. capillaris** C. Müll.; *dioica;* ramis pendulis *longissimis quam maxime tenuissimis capillaribus, maxime flexuosis flaccidis, flavidis*, ramulis brevissimis maxime remotis decurvatis; folia erecta laxiuscule imbricata *angustissime lanceolata longe et tenuiter acuminata* acuta parum concava, nervo longo tenui evanido, basi parum auriculata, cellulis alaribus paucis parvis planiusculis praedita, papillis obscura et margine denticulato-scabra, flavide viridia; perich. parum latiora, obsoletinervia, multo laxius et pellucide reticulata laevia; theca in ped. *perbrevi, perichaetio minuto* paraphysibus immersis vix instructo *inserto, minute ovalis;* dentes perist. ext. angusti, interni cilia capillaria nodosa.

Pterogonium sp. Hsch. in Musc. Mexic. a Deppe et Schiede lectis No. 1082.

Patria. Mexico: Deppe et Schiede.

b. *Caulis et rami filiformes.*

165. **N. nigrescens** Schw. (Suppl. III. I. 2. t. 24 excl. Syn.); *monoica;* caulis decumbens v. pendulus elongatus *filiformis rigidus* flexuosus, ramis *filiformibus* ac

qualibus obtusiusculis v. in stolonem tenerrimum attenuatis dense foliosis teretibus luride viridibus, dein saepe nigricantibus, brevibus simplicibus v. elongatis iterum pinnatis fasciculatim ramosissimus; folia caulina appressa, *humore subpatentia*, e basi *hastato-dilatata, alis valde undulatis saepius speluncoso-concavis exauriculatis praeditâ lanceolata, ad acumen usque breve planiusculum acutum cochleariformi-concava*, margine *late revoluto vix crenulato, nervo ultramedio tenui pallido subcarinato*, cellulis *oblique seriatis rhomboidaliter linearibus angustis brevibus obscuris tenerrime papillosis, basi infima ad nervum pallidioribus;* perich. stricta pallida laevia lanceolato-subulata elongate subpellucide reticulata, *paraphyses permultas exsertas cellulosas nodosiuscule denticulatas includentia;* theca in ped. *perbrevi flavido laevi minute anguste oblonga membranacea* fuscidula, operc. *conico oblique rostellato*, calyptra *pilosa;* perist. d. ext. lanceolati albidi laeves membranacei, distincte trabeculati et linea media exarati, int. in membrana vix emersa breviores capillares fugacissimi albi.

Pilotrichum paraphysale C. Müll. Linn. XIX. p. 216. — An *P. nigrescens* Hsch. in Sieb. Musc. Nov. Hollandiae, No. 14, quoad patriam nobis jam suspectum, huc pertineat, e specimine imperfecto haud clare elucet. Folia magis carinata et minus cochleariformi-concava sunt. — *Isothecium radicans* Brid. II. p. 374! — *Hypnum radicans* La Pyl. in Hb. Brid. — *Pterigynandrum nigrescens* Sw. Fl. Ind. Occ. III. p. 1778. — *Hypnum nigrescens* Sw. Prodr. Fl. Ind. Occ. p. 141.

β. illecebra; robustior amoene nigricanti-lutescens. *Pterigynandrum illecebrum* Brid. Mant. Musc. p. 131.

Patria. In montibus altissimis Jamaicae ad ramos arborum praesertim *Anacardii Occidentalis* primus legit Swartz. Venezuela, prov. Caracas, ad „Los Lagunas": Moritz; Cumbre de Caracas, altitudine 5000 pedum: Wagner, 9. Sept. 1849 c. fruct. junioribus, ad lapides in societate *N. cylindricaulis.* In Insula Hispaniola Thuiller legit. In insula Trinidad Antillarum minorum ad St. Cruz et in monte Tocuche copiosissime legit Crüger.

Species quoad colorem valde varians, notis tamen specificis, praesertim foliis usque ad acumen tantum cavis, margine late revolutis primo momento discernibilis.

166. **N. appressa** C. Müll.; *N. nigrescenti* simillima, sed caulis crassior amoene nigricanti-lutescens obtusirameus, folia e basi *quam maxime late hastatâ brevissime lanceolata.*

Hypnum appressum Hsch. Fl. Bras. I. p. 90!

Patria. Brasilia, Minas Geraës, ad terram: Martius.

Sterilis nota quidem, sed a *N. nigrescente* foliis certe distans.

167. **N. funalis** C. Müll.; caulis pendulus subtriuncialis v. procumbens vage ramosus, ramis subsecundis semiuncialibus simplicibus; folia ovato-acuminata concaviuscula, plicato-striata serrulata evanidinervia, siccitate erecta, haud tortilia, nitida lutescentia, tenuissime areolata. †.

Pilotrichum funale Wils. Ann. and Mag. of Nat. Hist. 1847. XX. p. 378.

Patria. Jamaica, Port Royal: G. M'Nab. Arborea.

N. nigrescenti proxima declaratur.

168. **N. Deppii** Hsch. (Musc. Mexic. Depp.); *N. nigrescenti* simillima, sed *flaccidior*, ramis magis attenuatis, folia e basi *alis coarctatis angustiore* late lanceolato-acuminata acutata, *usque ad apicem aequaliter concava, haud cochleariformia, margine haud revoluta*, cellulis *ob papillas tenerrimas creberrimas vix conspicuis veluti conflatis;* paraphyses capillares simplices v. e cellularum seriebus duabus compositae; pedunculus *subscaber;* theca e collo longiori anguste oblonga; perist. d. ext. angusti albidi subfragiles, ciliis capillaribus *fissilibus* brevioribus.

Pilotrichum seriatum C. Müll. Linn. XIX. p. 217. — *Pterigynandrum seriatum* Hsch. in Musc. Mexic. Depp. et Schiedean.

Patria. Mexico: Deppe et Schiede pr. Xalapam legerunt.

169. N. denticulata C. Müll.; *dioica; N. Deppii* simillima, sed differt ramis *subtruncato-obtusis* tenuibus, minus regulariter et aequaliter pinnatis, flavo-viridibus, haud nigrescentibus, foliis caulinis *multo latioribus longissime et capillariformi-acuminatis, margine papillis tenuissimis distincte denticulatis*, e cellulis distinctioribus compositis, dentibus peristomii externis longioribus *magis rugulosis*, ciliis internis *in membrana longiore positis perforatis.*

Patria. Venezuela, prov. Caracas: Moritz.

170. N. Africana C. Müll.; *dioica; N. Deppii* simillima, sed *rigidissima*, folia longius acuminata, margine *inferne revoluto*, cellulis *minutis;* perichaetialia, pedunculus et paraphyses *N. Deppii.*

Patria. Prom. b. spei, Olifantshoek: Ecklon copiosissimam, sed imperfectam legit.

c. *Rami turgidi, foliis appressis.*

171. N. illecebra C. Müll.; *dioica;* caulis secundarius longissimus valde flexuosus foliosus, ramis curvatis densifoliis *obtusis teretibus crassis* luteo-viridibus, dein nigricantibus, remotis, simplicibus brevibus v. longioribus iterum ramulosis pinnatim divisus, *humore flaccidus mollis;* folia caulina *siccitate et humore appressa, e basi ob alas constrictas valde undulato-plicatas angustiore latissime cochleariformi-ovata et usque ad acumen concava plicata, acumine lato brevi subretuso*, margine valde undulato erecto ob papillas tenerrimas *vix conspicuas* denticulato, nervo tenui ante apicem evanido, cellulis *angustissime linearibus* asperulis, *ubique aequalibus et pallidis;* perich. vaginantia lanceolato-subulata, elongate laxe pellucide reticulata, obsoletinervia, paraphyses longe exsertas valde tortuosas cellulosas nodosiusculas includentia; theca in ped. *breviter exserto flavido subscabro parum curvato apice in collum incrassato erecta turgidiuscule ovalis* fuscidula exannulata, operc. *conico subulato obliquo;* calyptra dimidiata subpilosa; perist. d. ext.

late lanceolato-acuminati subirregulares, membranacei albidi, crassiuscule trabeculati et linea media obsoleta notati, int. aequilongi capillares carinati solidi flaccidi subangulati.

Antitrichia cuspidata Necs ab Es. Linn. XIX. p. 681. — *Anomodon flexilis* Hmp. Linn. XII. p. 356. — *Leskea heterophylla* Hsch. in Musc. Mexic. Deppeanis. — *L. flexilis* Hsch. in Musc. Mexic. Depp. et Schied. No. 1093. — *Pilotrichum flexile* Hmp. in sched.

Patria. Mexico, Xalapa: Deppe et Schiede, nuperius Aschenborn; in locis accuratius non designatis: C. Ehrenberg. E Guatemala comm. Kegel.

Caracteribus expositis facile discernibilis.

172. N. Miqueliana C. Müll.; *dioica; N. illecebrae* simillima, sed tenerior *pallide viridis* nigricans; folia caulina e basi ob alas constrictas undulato-plicatas angustiore late ovato-oblonga *obtusa in mucronem brevem attenuata, vel in ramis junioribus in acumen latius et longissimum acutatum producta, maxime longitudinaliter plicata,* papillis *ubique distinctis,* margine apice quoque coarctato; perichaetia, paraphyses, theca, operculum et peristomium *N. illecebrae.*

Patria. Java, in prov. Buitenzorg: Hb. Miquelian.

173. N. cirrhifolia C. Müll.; caulis longissimus pendulus crassiusculus nigricans, foliosus, flexuosus, ramis teretibus crassis turgidis obtusis *aureo-lutescentibus,* inferne nigricantibus, patentibus, *longiuscule simplicibus* flexuosis v. longioribus iterum brevissime ramulosis, *nitidis;* folia caulina dense appressa *apicibus recurvis,* latissime *breviter subrotundate ovata obtusa* cochleariformi-concava, *mucrone dimidio longiore tenui* denticulato terminata, basi ad alas parum angustata et plicata, superne vix plicata, nervo ultramedium producto tenui, cellulis subtilibus tenerrime papillosis *flavescentibus.* †.

Hypnum cirrhifolium Schwägr. Suppl. III. I. 1. t. 218.

Patria. Insula Mauritii: Guil. Sieber.

169. **N. denticulata** C. Müll.; *dioica; N. Deppii* simillima, sed differt ramis *subtruncato-obtusis* tenuibus, minus regulariter et aequaliter pinnatis, flavo-viridibus, haud nigrescentibus, foliis caulinis *multo latioribus longissime et capillariformi-acuminatis, margine papillis tenuissimis distincte denticulatis,* e cellulis distinctioribus compositis, dentibus peristomii externis longioribus *magis rugulosis,* ciliis internis *in membrana longiore positis perforatis.*

Patria. Venezuela, prov. Caracas: Moritz.

170. **N. Africana** C. Müll.; *dioica; N. Deppii* simillima, sed *rigidissima,* folia longius acuminata, margine *inferne revoluto,* cellulis *minutis;* perichaetialia, pedunculus et paraphyses *N. Deppii.*

Patria. Prom. b. spei, Olifantshoek: Ecklon copiosissimam, sed imperfectam legit.

c. *Rami turgidi, foliis appressis.*

171. **N. illecebra** C. Müll.; *dioica;* caulis secundarius longissimus valde flexuosus foliosus, ramis curvatis densifoliis *obtusis teretibus crassis* luteo-viridibus, dein nigricantibus, remotis, simplicibus brevibus v. longioribus iterum ramulosis pinnatim divisus, *humore flaccidus mollis;* folia caulina *siccitate et humore appressa, e basi ob alas constrictas valde undulato-plicatas angustiore latissime cochleariformi-ovata et usque ad acumen concava plicata, acumine lato brevi subretuso,* margine valde undulato erecto ob papillas tenerrimas *vix conspicuas* denticulato, nervo tenui ante apicem evanido, cellulis *angustissime linearibus* asperulis, *ubique aequalibus et pallidis;* perich. vaginantia lanceolato-subulata, elongate laxe pellucide reticulata, obsoletinervia, paraphyses longe exsertas valde tortuosas cellulosas nodosiusculas includentia; theca in ped. *breviter exserto flavido subscabro parum curvato apice in collum incrassato erecta turgidiuscule ovalis* fuscidula exannulata, operc. *conico subulato obliquo;* calyptra dimidiata subpilosa; perist. d. ext.

nervo tenuissimo breviusculo instructa, planiuscula parum plicata.

Patria. Mexico, inter *Neckeram cochlearifoliam* crescens: C. Ehrenberg sterilem legit.

d. *Rami turgidiusculi flaccidi laxifolii.*

177. **N. crispatula** Hook. (Musc. Exot. t. 152.); *dioica;* caulis pendulus in divisiones plures elongatas *flaccidas* divisus; divisiones ramis breviusculis simplicibus *flaccidis* flexuosis pendulis *attenuatis laxifoliis sordide lutescentibus;* folia caulina crispatula, humore erecto-patula, *laxissime imbricata,* e basi dilatate auriculatâ *hastato-lanceolata* acuminata, plicata, concava, margine erecto ubique denticulato v. serrulato, nervo canaliculato subtenui ante apicem evanido, cellulis brevibus densis subdiaphanis tenerrime papillosis, alaribus ad auriculas minutas angulate rotundatas vix ullis irregularibus parum majoribus pellucidis; perichaetia turgide exserta, foliis vaginantibus longissime acuminatis teneris appressis ubique elongate pellucide reticulatis evanidinervibus; theca in ped. *perbrevi valde papilloso* purpureo erecta *subgloboso-ovalis* imperfecte annulata, operc. conico subulato obliquo; perist. d. ext. valde attenuati flavo-rufi longi trabeculati, int. aequilongi albidi, in membrana brevi, angusti, hiantes.

Brid. II. p. 237. — Schwägr. Suppl. III. I. 2. t. 229. — *Cyrtopus crispatulus* Brid. olim. — *Hypnum crispatulum* Hook. in Trans. of Linn. Soc. IX. p. 321. — *Hookeria crispatula* Hook. et Grev. ex Montagne!

Patria. Nepal: Buchanan et Gardner.

Calyptram non vidimus.

178. **N. serrulata** Brid. (II. p. 238.); *dioica?* caulis secundarius elongatus *densifolius robustus mollissimus,* in ramos patentes breves simplices *vix attenuatos densifolios* v. longiores iterum pinnatos divisus, lutescens *subflaccidus* flexuosus; folia caulina *densius imbricata,* e basi *perfecte lanceolata vix auriculata, non hastato-dilatatâ longius acuminata, parum plicata,* concava, serrulata,

margine ubique erecto, nervo ante apicem evanido *carinato, haud canaliculato,* cellulis *angustissime linearibus longioribus* parce punctulatis, alaribus ad auriculas *parum distinctas* subimpressas vix ullis laxiusculis parvis pellucidis.

Pilotrichum serrulatum P. B. Prodr. p. 83. — *Hypnum ericetorum* Brid. Sp. Musc. II. p. 97.

Patria. Insula Bourbonis, Plaine des Chicots, ad terram sub Ericis cum Sphagnis: Bory St. Vincent.

A *N. crispatula* affini notis designatis differt. Fructus adhuc ignotus.

179. **N. Dozyana** C. Müll.; *dioica?* caulis longissimus pendulus filiformis foliosus flexuosus flaccidus, *pallide viridis,* ramis pendulis longiusculis mollissimis, *apice gemmaceo-foliosis,* robustis crassis laxifoliis flexuosis simplicibus v. longioribus iterum ramulosis pinnatus v. bipinnatus; folia caulina *laxissime imbricata, patentia,* e basi *marginibus coarctatis subconniventibus angustiore subexauriculatâ* late lanceolato-acuminata, *cymbiformi-concava, haud plicata, sed ad acumen elongatum latum longiuscule acutatum maxime undulata, ubique subdenticulata,* margine erecto, nervo elongato evanido tenui, *nec canaliculato nec carinato,* cellulis *N. serrulatae,* alaribus subnullis; perich. erecta, apice recurva, oblonga acuminata v. cuspidata, infima ovata acuta, obsoletinervia; theca erecta v. pedunculi scabri *flexura inclinata,* oblongo-cylindrica, operc. conico-acuminato curvato, calyptra pilosa.

N. longissima Dz. et Molkb. Ann. des sc. nat. 1844. p. 313.

Patria. Java, Borneo, Sumatra.

A *N. crispatula* et *serrulata* proximis vestigiis distinctius explicatis longe separatur. Fructum non vidimus.

180. **N. Wallichii** Decand. (in Hb. Bridel.); caulis longe pendulus *tenuissimus foliosus,* ramis *remotissimis laxissime foliosis flaccidissimis* brevibus simplicibus v. longioribus parce divisis *e lutescenti rufescentibus;* folia

caulina e basi *vix auriculata longe anguste lanceolato-acuminata subpilifera planiuscula, alis basi vix undulatis et nunquam plicatis,* margine ubique erecto *distincte serrulato,* nervo pallido ultramedio carinato, cellulis elongate angustissime linearibus, ob papillas creberrimas tenerrimas *maxime opacis* viridiusculis, alaribus in orbem fugacem minutum conglomeratis minutis.

Hypnum Wallichii Brid. II. p. 416.

Patria. Nepal, in *Berberide Wallichii:* Decandolle in Hb. Brid.

Virtutibus accuratius expositis ab omnibus affinibus recedit.

181. **N. abietina** Hook. (Musc. Exot. t. 7.); caulis primarius repens, divisionibus pluribus erectis *elatis gracilibus,* plerumque *valde breviter et simpliciter struthiopteroideo-pinnatis,* basi indivisis subaphyllis, *ramis attenuatis* patentibus subdistantibus; folia caulina amoene viridia undique imbricata erecto-appressa, humore laxe disposita, ovato-deltoidea acuminata, ramea ovata subacuminata, subintegerrima, interdum subplicata, margine saepe paullum involuto, nervo valido excurrente concolori, cellulis subtilissimis, basi linearibus flexuosis brevibus; perich. integerrima parva enervia, ext. ovato-rotundata, breviter acuminata, valde concava, interiora longiora, pedicellum vaginantia; theca *breviter exserta* ovata annulata badia, operc. conico breviter rostrato subrecto; calyptra conico-dimidiata glabra pallide badia; perist. d. ext. breves lanceolati angusti dense trabeculati fusciduli, int. filiformi-setacei carinati nodosiusculi. †.

Schw. Suppl. II. I. p. 154. t. 140. — *Pilotrichum abietinum* Brid. II. p. 258.

Patria. In Americae borealis plaga occidentali: Menzies 1792.

Sectio IX. **Dichelyma** Myrin in Act. Acad. Reg. Sc. Holm. — Caulis *fluitans* irregulariter pinnatus, pleurocarpicus et cladocarpicus, ramis falcatis. Folia *secunda vel falcata, elongate linearireticulata.*

Sectio pulcherrima, *Fontinali* generis *Pilotrichi* analoga, procul dubio ad *Neckeras* revocanda est; nam peristomium, etsi modificatum, ab illo *Neckeracearum* typice non refugit, ut *Neckera Moritzii*, *Pilotrichum densum*, *Dichelyma capillaceum*, *leucocladum et subulatum* ostendunt. — Omnes congeneres rarissime fructificantes.

Subsectio I. **Eudichelyma.** Rami *apice falcati*; folia *falcato-secunda*; theca e foliis perichaetialibus *ocreato-convolutis contortis emersa*; calyptra *thecam superans et basi includens*.

a. *Peristomium internum omnino cancellatum.*

182. N. falcata C. Müll.; dioica; cespites longe fluitantes sordide virides lutescentes v. rufescentes nitidi; caulis firmus, ramis elongatis divisis v. brevioribus simplicibus, apice falcatis subpinnatim divisus, gracilis flexuosus; folia caulina laxe imbricata secunda, elongate anguste lanceolato-acuminata falcata complicato-carinata, margine superne convexiusculo denticulato, nervo canaliculato subexcurrente rufescente, cellulis elongatis angustis pellucidis virescentibus, alaribus vix ullis laxioribus fuscidulis; perichaetia longissime cylindracea angustissima, foliis ocreate contorte convolutis longissimis enervibus tenuiter membranaceis pellucidius reticulatis integerrimis; theca in ped. breviuscule exserto rufo laevi erecta cylindraceo-oblonga aequalis macrostoma exannulata fusca, operc. conico acuminato subobliquo rubro magno; perist. d. ext. elongati anguste lanceolati in crura duo hic illic cohaerentia, trabeculis fuscis pachydermibus amoene rotundate articulata fissi, pallide fusci rugulosi, int. conum elongatum fuscum pulcherrime regulariter cancellatum sistentes externos longe superantes laeves; calyptra longe subulata albida laevis, thecae basin includens subcontorta.

Dichelyma falcatum Myrin in Act. Reg. Acad. Sc. Holm. 1832. p. 274, t. 6. — Bryol. Europ. Fasc. 16. Fontinaleae p. 6. t. 1. — *Fontinalis falcata* Hedw. Musc. Fr. III. p. 57. t. 24. — Brid. II. p. 659. — *F. capillacea* Linn. Fl. Suec. n. 982.

Patria. In rivulis frigidis regionis subalpinae ad saxa Scandinaviae, ubi primum detecta, per Gothiam,

Norvegiam, Sueciam, Lapponiam et Finlandiam borealem; in Germania ad exitum stagni Sudetorum quod „der kleine Teich" dicunt: Sendtner 1838. — *Aug., Sept.*

Peristomium pulcherrimum. Pl. mascula femineae omnino similis, floribus permultis hexaphyllis angustis, foliis ovato-acuminatis enervibus.

b. *Perist. internum apice solo cancellatum.*

183. **N. capillacea** C. Müll.; dioica; *N. leucocladae* simillima, sed lutescenti-fuscescens, folia longissime et tenuissime subulata, angustiora, ad subulam parum denticulata; perich. obtusiora; theca *N. leucocladae* vix emergens, operculo et calyptra simili; perist. d. ext. *N. falcatae*, valde rugulosi, interni externis similes pallidius fusci, apice cancellati, valde rugulosi.

Dichelyma capillaceum Br. Europ. Fasc. 31. 1846. Suppl. Dichelyma. c. ic. — *D. capillaceum β. subulifolium* Br. Europ. Fasc. 16. 1842. Fontinaleae. Dichelyma, p. 8. tab. 3. fig. β. 1, 2, 2. a. — *Fontinalis capillacea* Dicks. Crypt. Fasc. 2. p. 1. — Brid. II. p. 660. — F. capillacea calycibus styli instar cuspidatis. Dillen. Musc. p. 260. t. 33. f. 5. — *F. falcata* Hmp. Linn. XIII. 1839. p. 45!

Patria. America septentrionalis, ubi in Pensylvania primus legit colonus Bartram, qui Dillenio communicavit, dein Beyrich et Drummond et nuperius ad lapides in rivulis prope Bloomingdale Novi Eboraci: Torrey in Sulliv. Musc. Allegh. No. 151. In rivulis Scoticis: Dickson; in Sueciae prov. Westermannia prope Odensvi: Dybeck. — *Ad aestatis finem.*

c. *Perist. internum nunquam cancellatum.*

184. **N. leucoclada** C. Müll.; dioica; *N. falcatae* simillima, sed gracilior pallide virescens, folia breviora lanceolate abrupta haud subulata et parum falcata, apice distincte serrata; theca e perichaetio elongato vix emergens brevius oblonga, longius operculata; perist. d. ext. late lanceolati tenues obtusiusculi aequaliter fusci, subrugulosi, trabeculis tenuibus in articulos quadratos haud rotundatos divisi, ad lineam longitudinalem multo minus se-

cedentes, interni: cilia tenera simplicia perfecte libera fusca subrugulosa et subcarinata; calyptra *N. falcatae.*

Dichelyma capillaceum Br. et Sch. Br. Europ. Fasc. 16. 1842. Fontinaleae. Dichelyma, p. 7, excl. Syn. Dillen. et Dickson.! t. 3; excl. fig. β. 1, 2, 2. a. — Myrin in Act. Reg. Acad. Sc. Holm. 1832. t. 7. A. — *D. pallescens* Br. Europ. Fasc. 31. 1846. Suppl. Dichelyma, in excurs. — *Fontinalis capillacea* Hook. Drumm. Musc. Amer. 1832. No. 243.

Patria. America septentrionalis, ad radices arborum, ad rivulos pr. Holland-Landing: Drummond.

Peristomium *Neckerae* perfectum!

Subsectio II. **Cryphaeadelphus.** Rami *stricti*, *nunquam falcati*; folia *erecta vix secunda*; theca in foliis perichaetialibus *recte imbricatis immersa*; calyptra *minuta operculum solum obtegens.*

Dendropogo Cryphaeae generis *Pilotrichi* sectio parallela.

185. **N. subulata** C. Müll.; dioica; cespites longe fluitantes pallescentes, caulis longissimus flaccidissimus gracilis remotifolius, ramis flaccidis elongatis patentibus gracilibus curvatis inaequalibus apice subulatis pinnatim divisus; folia caulina laxissime imbricata, vix secunda, longiuscule lanceolata, valde complicato-concava, marginibus subinvolutis apice denticulatis, nervo flaccido tenui rufescente ante apicem evanido, cellulis elongatis laxiusculis pellucidis, alaribus multo majoribus laxioribus tenerrimis pellucidis; perichaetia breviuscule emersa, foliis longe lanceolatis enervibus integerrimis imbricatis erectis; theca immersa ovalis, operculo convexo oblique rostellato, calyptra minuta cucullata laevi tenera obtecto; perist. d. ext. breviuscule lanceolati, maxime hiantes, crocei, minutissime punctulati, siccitate erecto-incurvi, interni ciliaeformes tenuissimi multo longiores, inferne nodulosi et appendiculati, summo apice appendicibus tenuibus conflatis cancellati, rufescentes laeves.

Dichelyma subulatum Myrin in Act. Reg. Acad. Sc. Holm. 1832. t. 7. B. f. 10—11. — Br. Europ. 1842. Fasc. 16. Fontinaleae. Dichelyma; p. 9. t. 2. — *Fontinalis subulata* P. B. Prodr. p. 58. — Brid. II. p. 661.

Patria. In aquis purioribus Americae septentrionalis, ubi in Georgia detexit Palisot de Beauvois; in Ludovicia: Drummond; in Arkansas ad lapides rivulorum ad Little Rock m. Martii 1837. sterilem legit Engelmann.

Neckerae dubiae.

1. **N. ? subuliformis** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 715.); caulis debilis procumbens, apice ascendens, 4-pollicaris, subpinnatus, ramis simpliciusculis apice attenuatis s. subuliformibus, alternantibus dense foliosis purpurascentibus; folia laxe imbricata erecto-patentia, cordato-acuminata, obscure serrulata, concava, basi plicata, lurido-brunnea vel flavescentia, nervo supra medium evanescente, cellulis confertis sexangularibus. †.

Patria. Java.

Ex animadv. auctorum *N. flavescenti* Hook. affinis, sed foliis disparsis cordato-acuminatis serrulatis concavis uninervibus recedit.

2. **N. ? plumosa** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 715.); caulis repens vage ramosus, fuscus, ramis erectis, pinnatim interdum bipinnatim ramosus, ramulis brevibus alternantibus ut caulis et rami foliosis; folia bifaria erecto-patentia, siccitate crispabilia, lanceolato-linearia, acuta, basi concaviuscula, apice undulata, serrata, lurida, nervo infra apicem evanido flavescente, cellulis spissis. †.

Patria. Java.

Gen. IV. **Pilotrichum** P. B.

Prodr. p. 37. ex parte. — *Endotrichum* Dz. et Molkb. — *Symphysodon* eor. — *Callicosta* C. Müll. — *Dendropogon* Schimp. — *Cryptangium* C. Müll. — *Pterobryum* Hsch. — *Cryptothecs* Hsch. — *Garovaglia* Endl. — *Erpodium* Brid. — *Anoectangium* al. — *Cryphaea* Brid. — *Hydropogon* Hook. — *Hedwigia* Ehrh. — *Neckera* Hdw. et al. — *Hypnum*, *Fontinalis* antiq.

Calyptra *mitraeformis*. Peristomium et caetera *Neckerae*.

Patria. Per totum orbem terrarum.

Genus *Neckerae* proximum et ex toto parallelum.

Sectio I. **Distichia** Brid. ex parte. — Caulis *complanatus*, *foliis distiche imbricatis*, oblongo-ligulatis. Theca immersa.

Euneckeras generis *Neckerae* iterantes.

1. **P. undulatum** P. B. (Prodr. p. 83.); *hermaphroditum*; caulis longissime repens; divisiones elongatae decumbentes ubique loriformi-planissimae aequales, irregulariter pinnatae *luteo-viridissimae*, *maxime rugifoliae*, *firmae*; folia caulina densissime imbricata, e basi asymmetrica *undulato-auriculata* coarctatâ late ligulata truncato-obtusissima, apice parum excavata, margine erecto integro parum crenulato, nervo unico tenui longiusculo, cellulis rotundatis *v. ellipticis conflatis virescentibus*; perich. ext. squarroso-reflexa *majuscule* vaginanti-ovata subito breviter acuminata pallidissima, interna: paraphyses in foliola lineari-subulata longa subtrichoidea loriformia transita; theca immersa oblongo-cylindracea pallida, dein fusca, vix annulata, operc. conico-subulato *recto*, calyptra glabra, paraphysibus folioliformibus saepe obtecta *mitraeformis*, *pluries laciniata*; perist. d. ext. *lanceolato-subulati lutei fragiles*, linea media obsoleta notati, *laeves*, *remote articulati*, int. *aequilongi anguste subulati amoene flavidi carinati*.

Daltonia undulata Arn. Disp. p. 54. — *Neckera Distichia undulata* Brid. II. p. 241. — *Neckera undulata* Hdw. Musc. Fr. III. p. 51. t. 21. — *Hypnum Jamaicense* Gmel. Syst. Nat. II. p. 1341. — *Fontinalis crispa* Sw. Prodr. p. 138. — Sphagnum pennatum, undulatum, vagina pilosa. Dill. Musc. p. 294. t. 32. f. 8.

Patria. Per Antillarum archipelagum totum et oras vicinas vulgatissimum, e planitie usque ad altitudinem 5000 pedum ascendens, lapides humidas et radices arborum habitans. — Jan., Febr., Majo, Septbr.

A *Neckera disticha* simillima analoga notis cursive impressis longe recedit.

Sectio II. **Fontinalis** Dill. Musc. p. 254. — Plantae *hydrophilae fluitantes* elongatae cladocarpicae *maxime ramosissimae*; caulis *plus minus distincte trifarie foliosus, pinnatus*; folia *elongate laxe reticulata* enervia. Theca immersa.

Dichelymati generis *Neckerae* sectio analoga. — De peristomio adnotationes in *Neckeras* conferantur. — Nomen *Fontinalis* nomini *Pilotricho* senectute praestat; tamen ulterius praetulimus, quum prius auctores *Neckeraceis* hydrophilis semper imposuerint.

a. *Theca diploperistomata.*

2. P. antipyreticum C. Müll.; dioicum; cespites longissime fluitantes *lutescenti-rufescentes* nitidi; caulis ramis elongatis flaccidis *trigonis turgidis* ramulosis maxime divisus pluries irregulariter pinnatus; folia caulina *distincte trifaria conferta*, e basi angustiore longe decurrente, cellulis alaribus magnis laxissimis fuscidulis praedita subventricosâ late ovato-acuminata, *maxime complicate incurvo-carinata*, subacutata, enervia, integerrima, margine erecto *basi ad alam unam v. alteram extrorsum curvato*, cellulis elongatis laxis, utriculo primordiali *serpentine flexuoso maxime distincto* praeditis; perichaetia turgidissima exserta, foliis appressis latissime rotundato-ovalibus obtusissimis maxime laxe reticulatis; theca immersa turgide ovalis subsessilis aequalis, exannulata, leptodermis, operculo turgide conico obtuso firmo; perist. d. ext. robustissimi purpurei elongati latissime lanceolato-acuminati, superne saepius cohaerentes, ubique maxime sulcato-trabeculati, linea longitudinali exarati, reflexi, interni tenerrime capillares purpurei, trabis permultis tenerrimis purpureis longis transversim confluentibus, 1—2 geniculatis, ad genicula appendiculatis, conum pulcherrime cancellatum sistentes.

Fontinalis antipyretica L. Sp. Pl. p. 1571. — Br. Europ. Fasc. 16. 1832. Fontinaleae. Fontinalis, p. 4. t. 2. — Brid. II. p. 655. — *F. trifaria* Voit. Musc. Herbip. p. 125. — *F. triangularis* Gilib. — F. triangularis major complicata, e foliorum alis capsulifera. Dill. Musc. p. 254. t. 33. f. 1. — *Hypnum antipyreticum* Neck. Meth. Musc. p. 191.

Patria. Ad radices arborum, rupes, lapides et ligna n aquis fluentibus rarius stagnantibus per totam Euro- ›am et Americam septentrionalem, e planitie usque ad egionem montosam ascendens. — *Vere.*

E pulcherrimis muscis. Pl. mascula femineae simi- is, floribus axillaribus 9-phyllis gemmiformibus. No- is cursive impressis a *P. squamoso* certe differt.

3. P. squamosum C. Müll.; dioicum; *P. antipyre- ico* simile, sed caulis gracilior *compressus, haud distincte rigonus, atrovirens, apice in subulam longiusculam cau- latam julaceam productus;* folia caulina trifaria dense mbricata, elongate *anguste lanceolata cymbiformi-con- ava, stricta, haud carinato-incurva,* margine *ubique recto, nunquam ad alas reflexo,* cellulis utriculo primor- iali indistincto haud serpentine flexuoso praeditis, ala- ibus magis ventricosis; caetera *P. antipyretici.*

Fontinalis squamosa L. Sp. Pl. p. 1571. — Br. Europ. 1842. Fasc. 16. p. 5. t. 3. — Brid. II. p. 657. — *F. antipyretica β. mi- nor* Brid. II. p. 657. — F. squamosa tenuis sericea, atrovirens. Dill. Musc. p. 259. t. 33. f. 3. — *Hypnum squamosum* Neck. Meth. Musc. p. 192.

Patria. In locis iisdem cum praecedente per totam Europam rarius, in America septentrionali vulgare. — *Vere, aestate.*

4. P. Dalecarlicum C. Müll.; *dioicum; P. squa- noso* simillimum, sed folia caulina basi longius decurrente, ellulis alaribus *planis* praedita; perich. interna longiora *cuta ultra operculum porrecta;* theca minor, operculo reviore; perist. d. ext. remotius articulati, articulis ma- is prominulis, *ultra medium lacunosi,* interni *trabeculis ransversalibus apicalibus conflatis cancellati, inferiori- us liberis, omnibus haud appendiculatis lutescentibus.*

Fontinalis Dalecarlica Br. Europ. Fasc. 31. Suppl. c. tab. 1.

Patria. In rivulis et fluviis Sueciae praeprimis Da- ecarliae nec non Norvegiae australis: Lindblom, The- enius, Clason, W. P. Schimper. — *Aestate.*

Sterile tantum vidimus.

5. **P. Strömbäckii** C. Müll.; *dioicum; P. squamoso* simillimum, tenellum molle, *inferne maxime remotifolium gracillimum;* folia caulina *mollissima, facile dilacerantia, inferne maxime patentia,* anguste lanceolata, *basi parum decurrente,* cellulis alaribus parum ventricosis paucis praedita, cellulis caeteris *tenerrimis,* utriculo primordiali amoene chlorophylloso, dein serpentine flexuoso tenerrimo repletis; perich. plerumque praemorso-dilacerata; theca parva elliptica magis leptodermis; perist. d. ext. angustiores, magis sulcate trabeculati, *uti interni,* illis *P. squamosi* simillimi, *ubique granulose papillosi.*

Fontinalis hypnoides Hartmann Skandinaviens Flora, ed. 4. p. 434. — Br. Europ. Fasc. 31. Suppl. c. tab. 4, sed perist. int. dentibus perfecte horizontalibus false delineatis.

Patria. Ad paleas in rivulo lente fluente prope officinam ferrariam Oslättforsbruck Gestriciae Sueciae, ubi Strömbäck detexit et cum W. P. Schimper 1844 iterum legit. — *Augusto.*

Species pulchella distincta.

Forte huc pertinentes.

6. **P. distichum** C. Müll.; dioicum? caulis elongatus fluitans, ramificatione congenerum; folia caulina *siccitate caulem convolutaceo-amplectentia, apicibus patentioribus, apice ramulorum magis bifarie patentia, remota,* sordide viridia, anguste lanceolato-acuminata, *ubique cylindraceo-convoluta,* enervia integerrima, cellulis *anguste linearibus* elongatis, alaribus paucis laxis longis *planis* ad alam decurrentem positis.

Fontinalis disticha Hook. et Wils. in Drumm. Musc. Amer. II. No. 151. — *F. disticha* Sulliv. Musc. Allegh. No. 190. — *F. disticha* var. statu aestivo. Sulliv. l. c. No. 192!

Patria. America septentrionalis: Drummond, in rivulis prope Mobile Alabamae: Sullivant.

Caracteribus ab omnibus congeneribus diversum.

7. **P. sphagnifolium** C. Müll.; dioicum? caulis elongatus fluitans, ramificatione congenerum; folia caulina *multo*

latiora, e basi angustiore *convoluta* longe decurrente *latissime ovata obtuse acuminata, supra basin haud convoluta*, sed concava, *apice planiuscula*, enervia integerrima, *siccitate a caule multo magis divergentia*, lutescentia, cellulis *brevibus amplis laxis, utriculo primordiali serpentino maxime evoluto repletis sphagnoideis.*

Fontinalis disticha var. statu vernali. Sulliv. Musc. Allegh. No. 191!

Patria. Ad lapides in rivulis sylvestribus juxta Columbus Ohionis: Sullivant.

Notis laudatis a *P. disticho* certe differre videtur.

b. *Theca haploperistomata.*

8. **P. fontinaloides** C. Müll.; monoicum; caules elongati fluitantes gracillimi, irregulariter dichotome pinnati valde ramosi, foliis remotis, ramulis fertilibus exceptis, plerumque destituti, pallide virides molles tenelli; folia caulina ad ramulos fertiles breves dense imbricata, e basi angustiore ovalia vix acuminata, concava, apice remote serrata, enervia, margine erecto, cellulis laxis mollissimis chlorophyllosis, alaribus paucis subventricosis laxioribus; perich. magis acuminata; theca immersa subsessilis parva ovalis macrostoma, exannulata, operc. planiusculo recte rostellato, calyptra longiuscule campanulata laevi; perist. d. breves late lanceolati obtusiusculi, dense trabeculati, ad lineam longitudinalem subsecedentes, fusciduli, laeviusculi.

Hydropogon fontinaloides Brid. I. p. 770. — Schw. Suppl. IV. t. 307. — *Dryptodon fontinaloides* Brid. I. p. 205. — *Grimmia fontinaloides* Hook. Musc. Exot. t. 2.

Patria. In ripa fluminis Orinoco, inter Atures et San Fernando, ad arbores, quarum radices aquis obtectae sunt: Humboldt et Bonpland. In Brasiliae fluminibus Amazonum, Solimoês, Japurá et Rio Negro, a Martius collectum Hornschuch indicavit; an verum, dubii sumus.

P. gymnostomo simillimum.

c. *Theca gymnostoma.*

9. **P. gymnostomum** C. Müll.; monoicum; caulis longe fluitans mollis tener flaccidissimus pallescens, valde pinnatim ramosus, ramis elongatis iterum pinnatis; folia caulina remota, e basi longiuscule angusta ovata, obtuse acuminata, integerrima, enervia, margine erecto, cellulis laxissimis mollibus pellucidis, primum utriculo primordiali tenero repletis; perichaetia in ramulo densius folioso longiusculo gracillimo angustissima, foliis magis lanceolatis et acuminatis; theca immersa cylindracea aequalis exannulata, leptodermis mollis, operc. planiusculo recte rostellato, calyptra conica laevi.

Cryptangium Schomburgkii C. Müll. Linn. XVII. p. 599. — *Fontinalis gymnostoma* Br. et Sch. Br. Europ. Fasc. 16. Fontinaleae; p. 4. t. 1.

Patria. Guiana Anglica in fluviis: **Robert Schomburgk.**

P. fontinaloidi habitu simillimum.

Sectio III. **Meteorium** Brid. II. p. 264. — Plantae pleurocarpicae *elongatae pendulae dendrophilae*; caulis *ubique imbricatim foliosus* elongatus pinnatus; folia *cordato-amplexicaulia, elongate lineari*-reticulata.

Pseudopilotricho generis *Neckerae* sectio parallela.

A. *Folia erecto-patentia.*

10. **P. genuflexum** C. Müll. (Linn. 1844. p. 676.); *dioicum;* caulis longiusculus pendulus *mollissimus dichotome divisus flexuosus albidus*, ramis *flaccidissimis* flexuosis elongatis, *apice gemmaceo-foliosis*, folia caulina laxe conferta erecta, *cymbiformi-oblonga, in acumen basi valde coarctatum et sinuatum longissimum tenuissimum genuflexum, superne dentibus reflexis hamato-dentatum producta, membranacea pallidissima*, margine erecto v. subinvoluto usque ad acuminis medium integerrimo, nervo jam basi vel superne furcato obsoleto maxime complanato, cellulis oblongis ampliusculis v. veluti ellipticis conflatis; perich. oblongo-vaginantia acuminata integer-

ma tenera enervia; pedunculus brevis laevis rufus, captra junior campanulata laevis fuscidula; theca annulata res inclinata, operc. convexo obtuse mucronato.

Hookeria ancistrodes Mont. Ann. sc. nat. 1845. p. 676. et in st. de Chile Bot. Crypt. t. 4. f. 4.

Patria. Chile australis: Philippi. In sylvis siccis ov. Chiloë, mense Dec.: Gay.

Caracteribus cursive impressis cum specie alia nunam confundendum, memorabile. Fructum non vidimus.

11. **P. tumidum** Brid. (II. p. 265.); caulis primarius pens filiformis nudus; secundarius pendulus longiuscus crassiusculus lutescens nitidus *tumidulus*, dichotome visus; folia caulina laxissime imbricata *tumidule patula*, more maxime patentia, e basi subauriculato-rotundata plexicauli *latissime ovatâ breviter late oblongo-lanceolata*, caviuscula, margine erecto *ubique erose denticulato*, rvo flexuoso distincto ante apicem abrupto, *cellulis in embranam scariosam lutescentem nitidam conflatis elpticis vix conspicuis*, alaribus ad auriculas decurrentes tundatas vix impressas vix ullis pellucidioribus; perietia lateralia solitaria turgida, foliis *angustissime liari-lanceolatis subplanissimis, nervo latissimo obsoleto bexcurrente percursis, apice denticulatis, e cellulis elontis in membranam luteam conflatis compositis;* theca mersa majuscule ovata fusca, operc. conico longe acuinato recto; perist. d. ext. late lanceolati, laeviter trabelati, linea longitudinali fere divisi, cartilaginei amoene rantiaci, int. aequilongi ciliiformes concolores, basi eri.

Neckera tumidula Hook. in Wallich. Catal. No. 7613. — *N. mida* Dicks. mst. in Hook. Musc. Exot. Annot. ad *Neck. filamensam* t. 158! ubi pauperrime descripta.

Patria. India Orientalis, Nepal: Wallich. Ad filis Indicas collectum comm. amic. Sendtner.

Calyptram non vidimus.

12. **P. filamentosum** Brid. (II. p. 264.); caulis reens, secundarius *longissime pendulus*, in ramos breves

pinnatim dispositos v. elongatos dichotomos partitus, crassus turgidus, flavo-viridis, inferne fuscescens; folia caulina imbricato-patula patentissima, e basi angustiore ovata, *acumine elongato piliformi valde flexuoso ad basin undulato terminata*, margine erecto integerrimo, concava, nervo tenui ante acumen evanido; perich. multo minora *ovata concava sinuato-obtusa, pilo longo subflexuoso terminata, nervo obscuro, paraphyses numerosas includentia;* perichaetia *parum exserta;* theca in ped. *breviusculo* laevi *suberecta, oblongo-cylindracea*, pallide fusca, operc. conico rostrato vix obliquo, calyptra junior mitraeformis alba, pilis longis obsita; perist. duplicis d. *P. tumidi.* †.

Daltonia flamentosa Arn. Disp. p. 55. — *Neckera flamentosa* Hook. Musc. Exot. t. 158.

Patria. Nepal, in arboribus: D. Gardner.

A *P. tumido* habitu affini caracteribus accuratius expositis longe differt.

B. *Folia squarrosa.*

a. *Folia longe acuminata.*

13. P. squarrosum C. Müll.; caulis pendulus flexuosus robustus, irregulariter pinnatus lutescens, turgidus; folia caulina *distincte squarrosa densa*, e basi *latissime ovata inferne auriculato-rotundata amplexicauli in acumen elongatum tortum superne tenue producta, ubique denticulata*, caviuscula, *margine undulato*, nervo tenui ante acumen evanido, cellulis *elongate linearibus angustis pellucidis*, alaribus ad auriculam *in orbem ventricosum pellucidum* congestis quadratis pachydermibus.

Neckera squarrosa Hook. in Wallich. Catal. No. 7619. — Harvey in Hook. Ic. Pl. Rar. t. 22. et in Lond. Journ. of bot. 1840. p. 14 c. descript.

Patria. India borealis, ubi in Nepal vulgare videtur: Wallich.

Fructus ignotus.

14. P. patulum C. Müll.; *dioicum*; *P. Tovariensi* **simillimum, sed caulis pendulus turgidus vel filiformis; folia valde reflexa e basi longius angustiore semivaginante sensim dilatata, late *lanceolata, longe tenuiter flexuose acuminata, tenerrime denticulata*, nervo in acumen evanido tenuissimo.** †.

Hypnum patulum Sw. Prodr. Fl. Ind. Occ. p. 140. — Hdw. Sp. Musc. p. 279. t. 73. — Brid. II. p. 514. — *H. cirrhiferum* Spreng. in Brid. II. p. 410!

Patria. Jamaica: Swartz in montibus editissimis versus summitates ad arborum radices atque ipsos ramos legit. Hispaniola: Bertero. Mexico, Xalapa: Deppe et Schiede.

A *P. Tovariensi* proximo notis expositis distat.

b. *Folia breviter acuminata.*

15. P. patens C. Müll.; caulis elongatus decumbens foliosus crassiusculus, ramis remotis brevibus obtusis, luteo-viridibus nitidis; folia caulina squarrosa, e basi subcordata angustiore coarctata *latissime rotundato-ovata, breviter acuminata*, usque ad acumen caviuscula, *implana*, margine haud undulato erecto *tenuissime remote denticulato*, nervo tenuissimo evanido, cellulis elongate angustissime linearibus *subconflatis* lutescentibus, alaribus laxiusculis *fuscidulis* in orbem parvulum ventricosum dispositis.

Isothecium patens Brid. II. p. 364. — *Hypnum patens* Hook. Musc. Exot. t. 56.

Patria. In convallibus Andium Granatensium inter Almaguer et Pasto, elevatione 4800—6000 pedum: Humboldt et Bonpland.

A *Neckera squarrosa* Hook. affini caracteribus explicatis differt.

16. P. recurvifolium Hsch. (Fl. Bras. I. p. 58.); dioicum? caulis saepe ultrapedalis repens v. pendulus, remotifolius, ramis breviusculis v. longioribus subsimplicissimis dense foliosis subpinnatus; folia ramulina 4—5-faria, e basi *angusta late cordato-ovata mucronate acu-*

minata, carinato-concava, reflexa, amoene viridia, nervo *debili* evanido, *tenuissime serrulata*, cellulis angustissime linearibus; perich. ovato-acuminata, apice paullum patulo; theca in ped. perbrevi rufo laevi apice incrassato erecta obovata badia, operc. conico subulato recto, calyptra campanulata multifida *longe pilosa* obtecto; perist. d. ext. *longissimi lanceolato-subulati rufescentes solidi sulcato-trabeculati, int. aequilongi, in membrana brevi positi late lanceolato-subulati flavescentes medio valde hiantes.* †.

P. patulum Brid. II. p. 759, excl. Syn. Hedwig. — *Neckera patula* Schw. Suppl. II. II. 1. p. 45. t. 165, excl. Syn. Swarts. et Hedwig.

Patria. Brasilia, ad corticem arborum in Sierra d'Estrella: Beyrich, Aug.

P. patulo habitu proximum.

17. **P. Tovariense** C. Müll.; *dioicum;* caulis longissimus repens v. pendulus filiformis, ramis remotissimis v. densius approximatis brevibus turgidis squarrosifoliis viridissimis irregulariter pinnatus; folia caulina dense imbricata, e basi auriculato-cordata longius angustiore reflexa sensim dilatata *late ovata ad acumen usque concava, acumine brevi reflexo,* margine ubique erecto et *denticulato,* nervo tenuissimo ante apicem evanido, cellulis angustissime linearibus.

P. recurvifolium Hmp. Linn. XX. p. 92. — *Hypnum patulum* C. Müll. (non Sw.) Linn. XIX. p. 219.

Patria. Venezuela, Tovar, elevatione 5500 pedum: Moritz. No. 175.

Fructum non vidimus. A *P. patulo* caracteribus laudatis differt.

18. **Pilotrichum auronitens** Hsch. (Fl. Bras. I. p. 59.); caulis assurgens rigidus, ramis erectis brevibus secundis *subgracilibus stramineis;* folia caulina *patentissima,* laxe imbricata, e basi marginibus conniventibus parum reflexis *maxime coarctata* brevissima utrinque ad alas subventricose impressâ subcordate ovato-acuminata, *acumine semel torto breviusculo, planiuscula,* margine

erecto *ubique serrulato*, nervo tenui flavido evanido, cellulis angustissime linearibus longiusculis pellucidis, alaribus ad alas impressas vix ullis.

Patria. Brasilia aequinoctialis: a Martius.

Caracteribus facile discernibile, sterile solum notum.

19. **P. stramineum** C. Müll.; caulis elongatus repens filiformis, ramis brevissimis simplicibus subapproximatis squarrosifoliis subgracilibus stramineis nitidis pinnatus; folia caulina *e basi vix cordata et haud coarctata anguste lanceolato-acuminata, carinata*, margine ubique erecto serrulato, nervo tenui ante apicem evanido, cellulis angustissime linearibus, alaribus *subnullis*.

Patria. Chile: Pöppig foliis adhaerens sed sterile collegit.

A *P. auronitente* simillimo vestigiis expositis differt.

Meteoria incerta.

1. **P. capillaceum** Hsch. (Fl. Bras. I. p. 58.); caulis bipollicaris, inferne nudus, apice dense foliosus fuscus, assurgens, ramis patentibus pinnatim divisus; folia caulina conferta patentia subcordato-lanceolata longissime acuminata serrulata concava amoene viridia, nervo viridi ad medium evanido, cellulis anguste linearibus; perich. minora serrata, ext. ovata acuminata, int. latissima vaginata, in acumen brevius angustata; theca in ped. brevi curvato tortili inferne purpurascente minuta oblonga laevis brunnea, sicca ore constricta, operc. hemisphaerico-conico oblique rostellato; perist. d. ext. lanceolato-subulati trabeculati rufescentes, apicem versus flavescentes, int. ciliiformes, basi liberi, articulati flavescentes. †.

Patria. Brasilia, ad radices arborum prope Sebastianopolin: Beyrich Novembri legit.

Calyptra ignota.

2. **P. ambiguum** Hsch. (Fl. Bras. I. p. 59.); caulis filiformis vage ramosus, elongatus flaccidissimus remotissime foliosus, ramis simplicibus flaccidis lutescentibus ni-

tidis apice gemmaceo-foliosis; folia distantia, e basi angustiore brevi, ad alas utrinque parum impressas cellulis alaribus laxius et pellucidius reticulatas coarctata caviusculâ late cordato-ovata, acumine longo semel torto terminata, margine erecto ubique denticulato, nervo tenuissimo ante apicem evanido, cellulis angustissime linearibus.

Patria. Brasilia australior: Sellow.

Hypno praelongo haud dissimile, et forte *Pilotrichi* alienum.

3. **N. cordata** Hook. (in Wallich. Catal. No. 7623.); caulis secundarius pendulus pinnatus vagans, pinnis brevibus involutis apice in flagella tenerrima remote et minutissime foliosa productis tenellis, pallide viridibus, rigidis; folia remota patentia, e basi angusta brevissima utrinque ad alas infimas parum impressa subcordatâ late rotundate ovato-acuminata, concava, nervo tenui ante apicem evanido, margine basi sola revoluto, e medio ad apicem usque serrata, cellulis brevibus oblongo-linearibus pellucidis, alaribus ad alas subventricose impressas vix ullis pellucidioribus parvis; theca in ped. brevi subinclinata ovata parva.

Harvey c. ic. in Ic. Pl. Rar. Hook. t. 22; cum descr. in Lond. Journ. of bot. 1840. p. 15.

Patria. Nepal: Wallich.

Calyptram et fructum non vidimus; auctor quoque neglexit.

Sectio IV. **Cyrtopus** Brid. II. p. 235. — Plantae pleurocarpicae *ascendentes robustissimae densifoliae plerumque parce dichotome rarius pinnatim divisae*; folia scariosa plerumque plicata ovato-acuminata incrassate elliptice v. elongate areolata. Theca exserta et immersa.

Leucodonti v. Spiridenti generis *Neckerae* sectio analoga.

a. *Folia binervia.*

20. **P. plicatum** C. Müll.; *dioicum;* caulis primarius repens, ramis elongatis densissime foliosis turgidis par-

cissime dichotomis flexuosis pallide viridibus *magis compressis;* folia caulina patentia octofaria late ovato-oblonga, *subito in acumen subundulatum et tenuiusculum remote dentatum subpiliforme producta,* superne serrata, inferne denticulata, *valde longitudinaliter plicata, plicis profundis irregularibus,* nervis binis indistinctis brevibus, cellulis elongatis *pachydermibus incrassatis scariosis, basi badiis;* perichaetia emersa, angusta, foliis latissime convolutacea, *apice rotundata et subito in cuspidem longiorem denticulatam flexuosam producta,* haud plicata, *apice subrecurva;* theca *immersa* parvula *ovata,* exannulata, operc. brevi conico curvulo, calyptra laevi badia; perist. longe infra orificium oriundi breviter emersi d. externi lanceolato-acuminati, linea longitudinali *fissiles,* densius trabeculati, badii, int. vix breviores ciliiformes remote articulati pallidi.

Endotrichum densum Dz. et Molkb. Ann. sc. nat. 1844. p. 303 et Musc. Archip. Ind. Fasc. I. t. 1. — *Garovaglia plicata* Endl. Gen. Pl. p. 57. No. 590. — *Neckera plicata* Schw. Suppl. III. II. 1. t. 268. — *Esenbeckia plicata* Nees ab Es. in litt. ad Bridel.

Patria. Java, ad arborum truncos, in altioribus locis montis Gédé: Blume, Zippelius. Sumatra.

P. eleganti proximum, notis tamen cursive impressis optime distinctum.

21. P. elegans C. Müll.; *dioicum; P. plicato* habitu simillimum, sed folia caulina e basi angusta brevissima late ovato-oblonga, *sensim in acumen flexuosum haud undulatum longius producta, grosse et densius serrata, laeviter plicata,* nervis binis latis brevibus, cellulis *leptodermibus laxiusculis pellucide viridibus mollibus;* perich. ovato-lanceolata, *in acumen subulatum subserrulatum sensim attenuata erecta, minora;* theca *emersa ovato-cylindrica;* perist. d. ext. lanceolato-acuminati basi latiores, linea longitudinali *haud secedente* exarati.

Garovaglia elegans Hmp. in litt. — *Endotrichum elegans* Dz. et Molkb. Ann. sc. nat. 1844. p. 303. — Musc. Archip. Ind. Fasc. I. tab. 2.

Patria. Java, ad arborum truncos, in altioribus locis m. Gédé: Zippelius. Sumatra.

b. *Folia uninervia.*

22. P. densum C. Müll.; *dioicum;* caulis primarius longissime repens nigrescens tenuis nudus; secundarii erecti elongati densissime foliosi robustissimi, in ramos inaequales breves v. elongatos dichotome divisi, interdum subpinnati, lutescentes, rigidi; folia caulina erecto-imbricata, humore maxime patula, robusta, scariosa, fragilia, *e basi ovata late et longe lanceolato-acuminata, maxime plicata,* margine convexo vix revoluto, *supra basin grosse dentato,* nervo canaliculato subtenui hic illic ferrugineo *subexcurrente,* cellulis *minutis rotundatis* luteis *incrassatis,* inferne oblongis, basi fuscis, alaribus permultis *minutissime rotundis pallidioribus polygonatis;* perichaetia immersa parvula, foliis adpressis multo minoribus late ovatis breviter acuminatis vaginantibus, laxiuscule lineari-reticulatis, crenulatis; theca vix exserta turgide ovata fusca firma late annulata, operc. conico-acuminato acuto; perist. d. ext. robusti elati late lanceolati obtusati, ad latera sinuato-articulati, laevissime trabeculati, linea longitudinali obsoletissima, albidi maxime rugulosi, infima basi laeves; int. simillimi, ad latera maxime runcinato-dentati, dentibus apice perfecte cancellato-conflatis, inferne minus confluentibus.

Neckera densa Wils. Lond. Journ. of bot. 1847. p. 292. t. 11. — *Prionodon densus* C. Müll. Bot. Zeit. 1844. p. 129. t. 1. sub nom. false incripto *P. Ehrenbergii.* — *Neckera crassa* Hsch. Fl. Bras. I. p. 56 et in Musc. Depp. et Schied. — *Hypnum densum* Sw. Prodr. Fl Ind. Occ. p. 141. et in Hdw. Sp. Musc. p. 282. t. 74!

Patria. Jamaica australis in montibus coeruleis, ad radices arborum: Swartz. Mexico, ad Xalapa: Deppe et Schiede. No. 1085; in locis non designatis fertile primus legit C. Ehrenberg. Venezuela, ad Tovar, alt. 5500 pedum: Moritz. E Brasilia speciem simillimam sed sterilem misit Sellow. An species synonyma sit, latet.

Species maxime memorabilis, cujus peristomium necceroideum et fontinaloideum *Fontinaloideas* auct. cum *Necceris* et *Pilotrichis* intime conjungit. Calyptra, nobis non visa, ex analogo *Pilotr.' luteo-virente* mitraeformis erit. Pl. mascula longior flaccidior. A *P. elongato* foliis descriptis jam primo momento differt.

23. P. luteo-virens C. Müll.; *dioicum?* caulis laxe cespitosus erectus *subbipinnatus*, 10-uncialis, pallide lutescens, ramis compressis erecto-patentibus densifoliis; folia imbricata erectiuscula, *siccitate crispa*, ovato-lanceolata acuminata, *angustiora*, margine *apicem versus dentato*, inferne recurvo, plicata; perich. dense appressa multo minora, ovato-acuminata brevia, integra; omnia nervo ante apicem evanido; theca vix emersa late ovata, operc. conico-acuminato subrecto; calyptra mitraeformis glabra coriacea rufo-fusca minuta; perist. d. ext. *longissimi* albidi, *siccitate crispati*, *lineari-lanceolati*, trabeculati, int. aequilongi *tenues*, *in membrana breviter emersa positi*. †.

Neckera luteo-virens Tayl. Lond. Journ. of bot. 1846. p. 59. — Wils. e. ic. l. c. p. 452. t. 16. N.

Patria. Monte Pichincha Andium Quitensium: W. Jameson 1845.

A *P. denso* vestigiis cursive impressis primo conspectu distinctum.

24. P. elongatum C. Müll.; caulis elongatus *latissimus* densissime foliosus robustissimus, ramis elongatis similibus apice subhomomallis parce divisus, lutescens; folia caulina e basi *latissime ovata brevissimâ lanceolata*, *brevia*, *obtusiuscula*, *nervo excedente longe stricte et subdenticulate pilifera*, *siccitate valde humore vix plicata*, supra basin usque ad apicem *eroso-denticulata*, *haud fragilia*, margine basi revoluto et e cellulis alaribus *laxissime quadratis teneris pellucidis fuscescentibus majusculis composito*, cellulis caeteris *angustissime linearibus*, tenerrime papillosis.

Prionodon sciuroides Hmp. in litt. — *Hypnum elongatum* Hook. et Wils. Lond. Journ. of bot. 1844. p. 551.

Patria. Insulae antarcticae Aucklandi et Campbelli: J. D. Hooker.

Sp. pulcherrima, ex habitu *P. denso* intima, notis autem illustratis facillime discernibilis.

25. **P. setosum** C. Müll.; *dioicum*; caulis primarius repens, secundarius erectus subsimplicissimus v. subpinnatim ramosus, flexuosus, sordide lutescens; folia caulina dense imbricata, *humore horride patentia, longiuscule ovata, sensim in acumen elongatum, nervo valido excedente percursum, longe setoso-cuspidatum remote denticulatum producta*, margine ubique erecto, cellulis apice rotundis, basi ad medium oblongis, alaribus utrinque rotundatis, omnibus maxime incrassatis; perich. dense appressa, e basi vaginanti-oblonga, inferne longe et laxe reticulatâ acuminata, nervo excedente setacea, subintegerrima; theca in ped. perbrevi rubro laevi oblongo-ovata recta *exannulata*, operc. conico-acuminato curvulo; perist. d. ext. *latiuscule lanceolato-acuminati longi dense sulcate trabeculati laevissimi lutescentes*, linea longitudinali vix notati, int. *angustissimi aequilongi tenerrime membranacei albi*, in membrana breviter exserta positi, carinati, *solidi*.

Neckera (*Cyrtopus*) *setosa* Brid. II. p. 235. — *N. setosa* Hook. Musc. Exot. t. 7. — *Anictangium setosum* Hdw. Sp. Musc. p. 43. t. 5. f. 4—6.

Patria. Ex insulis Australibus, forsan a Banks collectum, primus habuit Hedwig. In sinu Dusky-Bay Novae Seelandiae: Menzies 1791.

Sp. notis laudatis a *P. denso* affini distinctissima.

26. **P. Trachypus** C. Müll.; *dioicum*; caulis primarius repens, secundarius ascendens simplex v. parce divisus v. ramulis distichis pinnatus robustus densifolius *atrofuscus, superne flavescens*; folia caulina densissime imbricata, *humore patentissima*, e basi semiamplexicauli cordata, ad alas subauriculatas decurrentes inflexa erectâ

subreflexe elongate lanceolato-acuminata, margine subundulato erecto ubique eroso-denticulato, carinato-concava, plicata, nervo ad medium evanido concolori; perich. teneriora, nervo tenuiori, obscuro concolori, externa ovato-acuminata, interna in acumen tenue longissimum attenuata undulata integerrima; theca in ped. *longiuscule exserto apice in collum incrassato ubique ciliate scabro* erecta, elliptica microstoma fusca, punctis nigris adspersa, operc. conico-subulato recto pallidiori, calyptra conica *uti vaginula longe villosissima*; perist. d. ext. molles crassi spongiosi *lanceolato-lineares, dense obsolete trabeculati, subpertusi*, albidi, *internum: membrana triplo brevior tenera albida truncata.* †.

Trachypus bicolor Reinw. et Hsch. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 708. t. 39. — Schw. Suppl. IV. t. 318.

Patria. Java et in Malabaria: Reinwardt.

Bartramiis robustis Hornschuch, *Hypno loreo* et *Leucodonti Canariensi* Schwägrichen comparavere. E caracteribus cursive impressis facillime distinguendum.

c. *Folia enervia.*

27. P. solitarium C. Müll.; caulis secundarius elongatus erectus *gracilis patentifolius* simplex; folia e basi *cordato-ovata lata longa subito fere acuminata enervia* caviuscula, acumine *parum torto vix denticulato*, margine *ubique erecto*, cellulis oblongis densissimis incrassatis, basi fuscis, alaribus *vix ullis.*

Hypnum solitarium Brid. Mant. Musc. p. 184. et Br. univ. II. p. 540.

Patria. In arboribus non muscosis insulae Bourbonis: Bory St. Vincent.

E statura *P. denso* affine, sed multo gracilius et caracteribus explicatis diversum.

Sectio V. **Cryphaea** Brid. Mant. Musc. p. 139. — Plantae pleurocarpicae v. cladocarpicae, rupicolae v. dendrophilae, dichotome v. pinnatim ramosae, subpendulae. Caulis *teres.* Folia cochleariformi-concava v. carinata ovata v. lanceolata, *rotundate areolata submollia, nunquam scariosa*, basi excisa. Theca immersa.

Harrisonias, Pterigynandra et *Cryphaeadelphos* generis *Neckerae* aemulantes plantae.

Subsectio I. **Dichotomaria.** Caulis *dichotome divisus*; thecae in ramulis brevissimis v. longioribus terminales paucae, gymnostomae globosae.

Harrisonias ex habitu in memoriam redigentes.

28. **P. ciliatum** C. Müll.; *monoicum;* laxe cespitosum incanum viride v. lutescens; rami erecti teretes parce divisi subclavati, ramulis breviusculis; folia caulina dense appressa, apicibus patulis, humore patentia, e basi angustiore ovato-acuminata, lutescentia, acumine lato longiusculo canaliculato diaphano denticulato, enervia, dorso praesertim apice hyaline papillosa, margine *ubique perfecte revoluto*, cellulis *grosse ellipticis, ad latera vix crenulatis, chlorophyllosis* mollibus, basis medio longioribus; perichaetia patula turgida, foliis longioribus, margine erecto apice longe albide maxime flexuose ciliato, cellulis basi elongatis *laxiusculis;* theca brevissime pedunculata immersa *e collo breviter pyriformi* turgide globosa macrostoma, aurantiaca exannulata gymnostoma, operc. planiusculo submammillato, calyptra elongata angusta campanulata, stylo sic dicto archegonii ornata, glabra.

Hedwigia ciliata Ehrh. Hann. Magaz. 1781. No. 69. p. 109. — Hedw. Musc. Frond. I. p. 107. tab. 40. — Br. Europ. Fasc. 29—30. *Hedwigiaceae*, c. tab. — *H. apocarpa* Leyss. Fl. Hal. n. 1049. — *H. diaphana* P. B. Prodr. p. 60. — *H. integrifolia* P. B. l. c. — *H. anodon* Ehrh. Beiträge 1787. I. p. 187. — *Schistidium ciliatum* Brid. Mant. Musc. p. 21. — Br. univ. I. p. 116. — *Gymnostomum Hedwigia* Web. et Mohr. Bot. Taschb. p. 78. — *G. ciliatum* Roth. Fl. Germ. III. I. p. 129. — *Anoectangium ciliatum* Brid. Sp. Musc. I. p. 22. — *Bryum ciliatum* Dicks. Fasc. IV. Crypt. p. 6. — *Br. sphagnoides* Jacq. Coll. II. p. 222. — *Br. apocarpum β.* Linn. Sp. Pl. p. 1579. — *Fontinalis albicans* Web. Spic. Fl. Gött. p. 38. — Sphagnum nodosum hirsutie incanum. Dill. Musc. p. 246. t. 32. f. 5.

β. secundum; caulis cespites latos altos sistens, flexuosus, tenuiusculus, sordide luteus, apice curvatus, perichaetiis distincte lateralibus, foliis secundis submuticis. Br. Europ. l. c. t. 2. sub nom. *Hedwigia ciliata β. secunda.*

γ. *striatum;* foliis longitudinaliter plicatis. *Anoectangium striatum* Wils. in Hook. Engl. Fl. p. 12.

Patria. Per totam Europam et Americam septentrion. in reg. montosa ad saxa sicciora. Var. β. locis umbrosis. Var. γ. in Britannia et Hibernia. — *Vere.*

Br. Europ. calyptram quoque pilosam descripsit et delineavit; nos ipsi haud observavimus.

29. **P. nivale** C. Müll.; *monoicum; P. ciliato* simillimum, amoene incano-lutescens, sed foliorum cellulae *dolioliformes minores ad latera maxime crenulatae valde obscurae* et scaberrimae, basi longiores *distincte papillosae;* perich. *basi multo laxius et tenerius* reticulata; theca pachydermis castanea, *apophysi polytrichoideo-fusiformi-coarctata praedita.*

Schistidium ciliatum Hmp. Linn. XX. p. 70. — *Anoectangium ciliatum* C. Müll. Linn. XIX. p. 199.

Patria. Venezuela, prov. Merida, in montibus nivosis: Moritz. No. 174.

Distinctissima species! Calyptra *P. ciliati,* glabra.

30. **P. subrevolutum** C. Müll.; *monoicum; P. ciliato* simillimum, sed folia *basi tantum margine revoluta, cellulis dolioliformibus maxime crenulatis et obscuris valde papillosis minoribus,* basi parietibus interruptis, *punctatis;* perich. *basi laxius reticulata;* theca *collo angustiore longiore praedita minor,* operculo *conico-cupulato.*

Patria. Mexico, *Harrisoniae secundae* associatum ad saxa pr. Malpays de la Joya: Schiede. In locis modo indicatis ibidem legit C. Ehrenberg.

Calyptra *P. ciliati,* glabra. Distinctissima species!

Subsectio II. **Eucryphaea.** Caulis plus minus longus *distiche pinnatus.* Thecae peristomatae, plus minus acuminate operculatae, in caule eodem plerumque creberrimae, unilaterales peristomatae ovatae v. oblongae.

Pterigynandra aliquot referentes plantae.

1. *Rami fertiles brevissimi.*

a. *Folia anguste lanceolata.*

31. P. tenellum C. Müll.; *monoicum;* caulis repens, ramis *pusillis teneris* simpliciter subpinnatis, *humore plumose foliosis;* folia caulina humore erecto-patula, *anguste lanceolato-acuminata*, integerrima, profunde carinata, margine basi parum revoluta, *excurrentinervia*, pallida, minute rotundato-areolata sublaevissima; perich. latius lanceolata, intima ex apice emarginato dentato in cuspidem strictam longiusculam, nervo percursam, denticulatam producta, tenera; theca immersa *tenella urceolata minuta, leptodermis, basi impressa*, operc. conico brevi recto, calyptra *scabra;* perist. infra orificium oriundi d. ext. *brevissima angustissime lanceolati*, linea media notati, indistincte articulati, *pallidissimi laevissimi*, int. *aequilongi capillares albidi laevissimi.*

Neckera tenella Schw. Suppl. II. II. 2. t. 198. — *Cryphaea tenella* Hsch. in Sieber. Musc. Nov. Holl.

Patria. Nova Hollandia: Sieber.

Exiguitate et teneritate partium omnium atque notis cursive impressis primo visu distinctissimum.

32. P. exiguum C. Müll.; *monoicum;* caulis pusillus *robustior densius foliosus*, folia *latius lanceolata, apice dentata;* perist. d. ext, *latius lanceolati solidi rugulosi*, int. *rugulosi;* calyptra *glabra.*

Patria. Prom. b. spei, Cap. Philippstown: Hb. Gottschean.

A *P. tenello* proximo notis cursive impressis distat.

33. P. consimile C. Müll.; *monoicum;* caulis *tenerrimus*, ramis *tenuissimis* brevibus saepe fasciculatim divisis subpinnatus, *humilis;* folia caulina appressa *vix conspicua, humore parum patula, minuta, anguste lanceolata, breviter stricte acuminata*, profunde carinato-concava, margine inferne paulisper revoluto, integerrimo, nervo rufescente tenui subexcurrente, cellulis minutis opacis sublaevibus; perich. pauca *theçae arcte appressa,*

latissime vaginantia, apice profundissime in partes duas aliformes subrotundatas excisa, nervo tenui *in cuspidem brevem segmenta vix superantem excedente, tenerrima* pellucida; theca *emersa, anguste cylindraceo-oblonga leptodermis aequalis,* late annulata, operc. eximie conico; perist. d. ext. *elongati* anguste lanceolato-subulati, tenues, ubique rugulosi lutei, int. angustissime subulati *aequilongi* similes rugulosi.

Cryphaea consimilis Mont. Ann. d. sc. nat. 1845. p. 100.

Patria. In cortice arborum Chiles meridionalis: C. Gay.

Omnium congenerum sp. tenerrima et vestigiis explicatis distinctissima, pulchella. Flores masc. minutissimi permulti.

34. P. Schiedeanum C. Müll.; *monoicum;* caulis *elongatus* tenerrimus valde ramosus, *parum robustior;* folia parum robustiora, apice *parce minute dentata,* nervo pallido *ante apicem evanido;* perich. thecam arcte includentia et *superantia,* late convolutacea *sensim acuminata, apice vix v. parum emarginata, longe stricte cuspidata,* tenerrima pellucida; theca *immersa,* breviter conico-operculata, calyptra tenerrima laevis.

Cryphaea filiformis Hsch. in Musc. Mexic. Depp. et Schied.

Patria. Mexico, Xalapa: Deppe et Schiede.

Ob vestigia indicata a *P. consimili* proximo et simillimo certe differt.

b. *Folia ovato-acuminata.*

a. Folia integra.

35. P. heteromallum P. B. (Prodr. p. 37.); *monoicum;* cespites laxe cohaerentes, ramis subpendulis humilibus tenuiusculis, *in ramulos similes plerumque tenero-pinnatos divisis, viridibus, ditissime fructificantibus;* folia caulina appressa, humore *subhorizontalia, e basi angustata decurrente anguste ovato-lanceolata,* carinata, *integerrima,* margine *inferne revoluto,* nervo ante apicem evanido, cellulis amoene viridibus *vix papillosis* rotunda-

tis; perich. late vaginantia *apice obtuse acuminata*, nervo valido *in cuspidem laevem brevem producto pungentia*, ubique elongate pellucide reticulata; theca immersa oblonga pallida aequalis, late annulata, operc. conico acuminato recto v. parum incurvo, calyptra minuta fusca *scabriuscula*; perist. d. ext. longi lanceolato-subulati angusti, linea media distincta notati, albidi, dense trabeculati, superne rugulosi, int. aequilongi capillares subfissiles rugulosi albi.

Cryphaea heteromalla Brid. II. p. 250. — *Daltonia heteromalla* Hook. et Tayl. Musc. Brit. p. 81. t. 22. — *Neckera heteromalla* Hdw. Musc. Fr. III. p. 38. t. 15. — *Hypnum heteromallum* Gmel. Syst. Nat. p. 1340. — *H. polycephalum* Neck. Meth. Musc. p. 190. — *Fontinalis secunda* L. jun. Meth. Musc. p. 368. — *Grimmia arborea* Schrank. Baiers. Fl. II. p. 445. — *Sphagnum arboreum* L. Sp. Pl. p. 1570. — Sphagnum heteromallum, polycephalum. Dill. Musc. p. 248. t. 32. f. 6. — *Phascum repens* With. Bot. Arrangem. p. 785.

β. aquatile; robustius, foliis caulinis late ovatis obtusiuscule acuminatis, perich. pachydermibus regulariter sensim acuminatis pungentibus, ob papillas distinctiores margine crenulatis. *Cryphaea v. Daltonia Lamyana* Mont. Ann. d. sc. nat. ser. II. T. VI. p. 327. t. 18.

γ. filiforme; caulis multo tenuior, squarrulosifolius, thecis minoribus. *Cryphaea filiformis* Sulliv. Musc. Allegh. No. 81. — *Cr. glomerata* Schimp. in litteris! — *Daltonia heteromalla* var. Hook. et Wils. in Drumm. Musc. Amer. n. 99. — Sphagnum vermiculare repens, capsulis intra foliolorum squamosorum alas minimis. Dill. Musc. p. 550. t. 85. f. 16! Cryphaea vermicularis Brid. II. p. 253.

Patria. In Angliae et Hiberniae truncis arborum vulgare. Ad litora Belgii et Germaniae septentrionalis, in arboribus campestribus raro et in Jutlandia Danica. In Germania australi prope Bipontum, populos amans. E Gallia per Pyrenaeos humiliores usque ad Lusitaniam, ubi Brotero legit. In Italia frequentius; in regione Oleae per totum Littorale usque ad Udine orae maris Adriatici. Var. *β.* in rivulis Galliae ad Lemovicem (Limoges) soc. *Grimmiae rivularis* et *Cinclid. fontinaloidis.* Var. *γ.* in

America septentrionali ut videtur haud rarum. *Julio* et *Augusto*.

A *P. filiformi* proximo notis laudatis longe recedit.

36. **P. nervosum** C. Müll.; *monoicum? P. heteromallo* simillimum, sed folia ovato-acuminata nervo *excurrente*, perich. longiora *lanceolata*, *dorso papillosa*, perist. d. ext. *linea media carentes*, interni *breviores*, *annulo vix ullo obscuro simplici* et calyptra conica *latere fissa*. †.

Daltonia nervosa Hook. et Wils. Lond. Journ. of bot. 1842. 2. p. 420. t. 24.

Patria. America septentrionalis, in arboribus pr. New-Orleans c. *Pil. heteromallo* associatum: Drummond.

37. **P. filiforme** P. B. (Prodr. p. 83.); *monoicum*; caulis subrepens; divisiones pendulae *remotae discretae* filiformes, *ramulis tantum fertilibus brevissimis ramulosae*, *rigidae*, *ferrugineo-lutescentes*; folia caulina appressa, *humore subito perfecte horizontalia*, e basi *subauriculato-decurrente* ovato-acuminata acuta, subreflexa, margine ob papillas crenulato *ubique erecto*, nervo ante apicem evanido, cellulis grossiuscule rotundatis papillosis; perich. late vaginantia, sensim acuminata, plus minus convolutacea, inferne elongate pellucide superne rotundate areolata, nervo basi obsoleto in cuspidem crassam *longam ubique serrulato-scaberrimam* producto; theca immersa ovato-elliptica microstoma, ore valde coarctata, aequalis, breviter conico-operculata, late annulata, calyptra *valde* papillosa fusca; perist. d. ext. anguste lanceolato-subulati valde rugulosi, linea longitudinali carentes, albidi, int. aequilongi *fugacissimi* capillares valde rugulosi *basi irregulariter appendiculati*.

Daltonia filiformis Arn. Disp. p. 54. — *Cryphaea filiformis* Brid. II. p. 252. — *Neckera filiformis* Hdw. Musc. Fr. III. p. 41. t. 16. — *Hypnum filiforme* Gmel. Syst. Nat. II. p. 1340. — *Fontinalis filiformis* Sw. Prodr. Fl. Ind. Occ. p. 138.

β. squarrosulum; divisiones magis ramosae squarrosulo-foliosae. *Cr. filiformis* C. Müll. Linn. XIX. p. 210. — *Cr.*

Caripensis C. Müll. l. c. — *Moritzia Caripensis* Hmp. Linn. XX. p. 82.

Patria. Hispaniola, ad ramos arborum: Swartz, Bertero. Mexico: Leibold. Var. β. Venezuela, Caracas et Caripe: Moritz.

38. **P. protensum** C. Müll.; *monoicum?* caulis elongatus ramosus, ramis *remotis protensis recurvatis brevibus* rigidis subpinnatus crassiusculus ferrugineus, superne lutescens; folia caulina *humore erecto-patentia*, siccitate magis appressa, lato-ovata acuminata *integra haud plicata*, concava, margine revoluto, nervo supra medium evanido; perich. lanceolata longissime acuminata, apicem versus vix plicato-undulata, nervo plerumque excurrente cuspidata, lineari-laxiusculo-reticulata pellucida; theca immersa cylindraceo-oblonga basi impresso-plicata, late annulata, operc. conico recto brevi, calyptra parva, basi laciniata, *apice scabra*, omnino obtecto; perist. duplicis d. ext. lanceolato-acuminati *valde rugulosi* albidi, remote articulati, subpertusi, cilia dimidio breviora maxime rugulosa filiformia.

Cryphaea protensa Br. et Sch. in Musc. Abyss. et C. Müll. in Linn. XVIII. p. 679.

Patria. Abyssinia: W. Schimper.

A *P. patente* notis laudatis facile distinguitur.

β. Folia dentata.

39. **P. sphaerocarpum** C. Müll.; *monoicum?* caulis pendulus vage et pinnatim ramosus, ramis apice attenuatis brevibus; folia caulina laxe imbricata, superne cauli appressa apice exstante, ovato-lanceolata *longe acuminata, apice tenuissime serrulata*, concava, nervo ad medium evanido, lutescenti-viridia; perich. erecto-patula, intima majora concava suberecta, exteriora longe minora plana integerrima, omnia pallide luteo-viridia; theca immersa lateralis *globosa* fusco-lutescens, late annulata, ore incrassato rubro, operc. conico acuto concolori; perist. albicantis duplicis d. int. filiformes, externis latioribus breviores. †.

Cryphaea sphaerocarpa Brid. II. p. 251. — *Neckera sphaerocarpa* Hook. Trans. of Linn. Soc. IX. p. 312. t. 27. f. 1.

Patria. Nepal: Buchanan, arboreum.

40. **P. patens** C. Müll.; *monoicum;* caulis longiusculus *crassus rigidus,* ramis *paucis patentissimis rigidis brevibus crassiusculis obtusis* divisus, parce fructificans; folia caulina *squarruloso-erecta, humore horizontalia, e basi cordata latissime rotundato-ovata, breviter acuminata,* acumine dentata, grossius areolata, concava, nervo ante apicem evanido, margine usque ad acumen revoluto; perich. ubique latissime convoluta, marginibus valde involutis, breviter acuminata enervia v. subito longiuscule cuspidata, nervo e cuspide ad medium folii descendente, tenera, pellucida; theca immersa minute ovata microstoma badia, operc. conico brevi recto, annulo lato; perist. d. ext. *angustissimi ubique rugulosi* albidi, int. *vix breviores filiformes similes;* calyptra laevis.

Cryphaea patens Hsch. in Musc. Mexic. Deppean. excl. Syn. *Hypn. patens* Hook.

Patria. Mexico: Deppe.

A *P. decurrente* proximo caracteribus cursive impressis primo momento differt.

41. **P. intermedium** C. Müll.; *monoicum;* caulis parce ramosus crassiusculus, ramis brevibus rigidis recurvis; folia caulina *humore erecto-patula,* lato-ovata breviter acuminata *integerrima* cochleariformia, margine usque ad acumen revoluto, basi decurrente, *glabra,* nervo tenui supra medium evanido; perich. late et maxime convoluta, in acumen longum *glabrum* producta, enervia v. apice solo nervosa, *infima basi laxe superne conflate et badio-reticulata;* theca immersa oblonga aequalis late annulata, *majuscula,* breviter conico-operculata, calyptra laevi; perist. d. ext. *latiuscule lanceolato-subulati, basi glabri rufescenti-albidi integri, apicem versus rugulosi,* int. filiformes *glabri* albi, *dimidio breviores.*

Cryphaea intermedia C. Müll. Linn. XIX. p. 212.

Patria. Mexico: Leibold. Dr. Gottsche comm.

Inter *P. patens* et *protensum* intermedium; a primo notis cursive impressis differt; a secundo theca haud plicata, calyptra glabra, peristomio et caule turgescente primo adspectu distat.

42. P. decurrens C. Müll.; *monoicum;* caulis elongatus *ramosissimus flaccidus,* ramis alternis v. oppositis *tenuissimis elongatis flexuosis flaccidis attenuatis flagelliformibus* remote pinnatus, ferrugineus, superne viridescens, ditissime lateraliter fructificans; folia caulina appressa, humore erecto-patula, e basi *longe et angustissime decurrente anguste ovato-acuminata,* profunde concava, *acumine graciliter latiusculo irregulari dentato,* margine usque ad acumen revoluto, nervo ultra medium evanescente, cellulis minute rotundatis; perich. e basi angustiore late convoluta, apicem versus dilatata, longissime flexuose acuminata, nervo nullo v. ex acumine ad medium folii descendente, elongate tenero-reticulata, plus minus plicata, pellucida; theca immersa ovata *haud plicata,* late annulata, operc. conico brevi recto; perist. d. ext. *lanceolato-subulati* breviusculi latiusculi, *inferne fusciduli glabri, superne rugulosi subpertusi,* int. *dimidio breviores* maxime rugulosi subalbidi *fragiles irregulares;* calyptra laevis.

Cryphaea protensa Schimp. in Hb. Schlechtendaliano. — *Cr. patens* C. Müll. in Linn. XVIII. p. 679 ex parte. — *Cr. patens* Hmp. in Hb. Schlechtend.

Patria. Mexico: C. Ehrenberg.

A *P. patente* notis illustratis, a *P. protenso* foliis dentatis jam toto coelo distat.

43. P. Jamesoni C. Müll.; *monoicum?* caulis decumbens, basi ramosus; rami basi nudi, medio breviter patenti-ramulosi vage pinnati, apice simplices incrassati, pallide virides, elongati, ditissime fructiferi; folia caulina imbricata erecta, *late ovata, longius acuminata, acumine minus denticulato,* margine reflexo, nervo ante acumen evanido *breviore;* perich. scariosa, *longissime acuminato-setacea,* enervia, appressa; theca *cylindrica*

annulata, operc. conico-acuminato inclinato; perist. albidum. †.

Cryphaea Jamesoni Tayl. Lond. Journ. of bot. 1848. p. 192.

Patria. Andes Quitenses, monte Pichincha, ad arbores, Dec. 1846: W. Jameson.

Ex animadv. auctoris a *P. patente* notis cursive impressis differt.

2. *Rami fertiles elongati.*

44. **P. julaceum** C. Müll.; *monoicum;* caulis ascendens strictus, ramis alternis filiformibus, humore turgescentibus patentifoliis, *patentibus elongatis fructiferis;* folia dense imbricata, humore subhorizontalia, *lato-ovata acuminata integerrima*, concava, sublaevia, rotundato-areolata, basi excisa et aurantiaca, margine revoluto, apice flexuoso, nervo valido ultra medium evanido, cellulis rotundatis; perich. e basi angusta longe lanceolato-acuminata undulato-plicata, basi pellucide elongate tenero-reticulata, nervo tenui ante apicem evanescente, vel *in cuspidem* elongatam producto; theca in *ramo elongato terminalis* immersa ovata, omnino plicata, basi impressa, late annulata, operc. conico recto brevi firmo, calyptra campanulata, basi late laciniata, superne scabra, omnino obtecto; perist. simplex *longissimum:* dentes longe lanceolato-subulati cupuliformes, humore reflexi, rugulosi, obsolete articulati, superne perforati, albo-lutei.

Cryphaea Leiboldi C. Müll. Linn. XVIII. p. 680. — *Grimmia julacea* Hsch. Fl. Bras. p. 7. t. 1. f. 1.

Patria. Mexico: Leibold. Brasilia, Serra dos Orgaôs super saxa rivorum: Beyrich, Gardner, Minas Geraës: Gardner, in sylvis udis, in vetustis truncis fluctuantibus fluminis Amazonum: Martius.

Ab omnibus congeneribus ramis fertilibus elongatis, caule fructifero ipso et peristomio simplici jam distinctissimum, *P. filiformi* habitu simillimum.

Subsectio III. **Dendropogon** Schimp. Bot. Zeit. 1843. p. 377. — Caulis elongatus pendulus, *ramis alternis toto ambitu dispositis*

pseudo-pinnatus. Thecae in ramis elongatis terminales peristomatae ovatae v. oblongae.

Cryphaeadelpho Dichelymati generis *Neckerae* subsectio analoga.

a. *Rami fertiles abbreviati.*

45. **P. helictophyllum** C. Müll.; *dioicum;* caulis longissimus pendulus filiformis flexuosus *flaccidissimus sordide lutescens,* ramis *longiusculis attenuatis flaccidis* patentibus remotis alternis plerumque simplicissimis et rarius fertilibus, indistincte circa caulem dispositis et igitur subdistiche pinnatus; folia caulina *laxe conferta, humore plumulose disposita, e basi utrinque auriculis parvis praedita lanceolato-acuminata, longitudinaliter biplicata, siccitate et humore cochleatim convoluta seu contorta,* subintegerrima, minute elliptico-areolata, tenuissime papillosa, opaca, nervo *unico tenerrimo obsolete;* perich. *late lanceolato-acuminata stricta,* valde exserta, pallida, longitudinaliter plicata, elongate dense reticulata, *distinctius nervosa;* theca immersa oblonga leptodermis, operculo convexo *oblique mucronato,* calyptra *pilosa;* perist. anguste lanceolato-subulati, rugulosi, albidi, linea media exarati, int. similes filiformes aequilongi.

Cryphaea helictophylla Mont. in Voy. au pôle Sud. Crypt. p. 322.

Patria. Taïti, in arboribus: Jacquinot.

46. **P. imponderosum** C. Müll.; caulis pendulus gracillimus flexuosus longissimus subpinnatus, ramis *perfecte patentibus* subdistantibus brevibus subcomplanatis acuminatis; folia laxe imbricata erecto-patentia, *lanceolato-acuminata, mediotenus uninervia, basi margine recurva serrulata, siccitate striata.* †.

Leskea imponderosa Tayl. Lond. Journ. of bot. 1846. p. 62. — *Cryphaea helictophylla* Wils. l. c. p. 453.

Patria. In sylvis Andium Quitensium prope Esmeraldos: W. Jameson.

A *P. helictophyllo* satis differre videtur.

47. **P. tenuissimum** C. Müll.; *dioicum?* caulis pendulus elongatus *capillaris,* ramis patentibus filiformibus

subsimplicibus, *elongatis capillaribus;* folia *remotissima, ovato-acuminata serrulata*, seminervia; perichaetia *valde conspicua.* †.

Cryphaea tenuissima Hook. et Wils. Lond. Journ. of bot. 1846. p. 453. t. 15. E!

Patria. In sylvis Andium Quitensium: W. Jameson.

E theca vetusta peristomium neckeroideum. Ex analogia huc relatum.

48. **P. fuscescens** Brid. (II. p. 264.); *monoicum?* caulis pendulus longissimus, pluries vage divisus flexuosus; divisiones sordide ferrugineo-virides tenues, ramulis brevibus reflexis subsimplicibus, subrigidis; folia caulina erecto-imbricata, humore erecto-patentia, *anguste lanceolato-acuminata*, vix concava, *biplicata, margine ad apicem serrata, nervo ante medium evanido;* perich. caulinis longiora *angustiora flavescentia enervia;* theca immersa oblonga fusca, operc. conico acuminato recto, calyptra parva mitraeformis pilosa; perist. d. ext. angustissimi longiusculi pallidi, int. capillares aequilongi.

Daltonia fuscescens Arn. Disp. p. 55. — *Neckera fuscescens* Hook. Musc. Exot. t. 157.

Patria. Nepal, in arboribus: D. Gardner.

P. Gorveano haud dissimile, sed ramis fertilibus brevissimis primo momento distinctum.

b. *Rami fertiles elongati.*

49. **P. Gorveanum** C. Müll.; *monoicum;* caulis longissimus pendulus tenuis flexuosus *rigidus sordide ferrugineo-viridis*, ramis *brevibus, distincte toto ambitu dispositis, patentibus rigidis tenuibus obtusis*, terminaliter fructiferis; folia caulina laxe conferta, *e basi angustiore latiuscule ovato-lanceolata, firma, brevia*, vix crenulata, concava, margine inferne subrevoluta, nervo *valido* ante apicem evanido, cellulis ellipticis fuscidulis subdiaphanis, et sublaevibus, alaribus distinctioribus planis multis quadratis; perich. late lanceolato-acuminata, longiora, firma,

pallida, elongate dense reticulata, concava, haud plicata, nervo *in cuspidem latam strictam tenuiter serrulatam producto pungentia;* theca immersa oblonga subplicata leptodermis annulata, operc. conico acuminato recto; perist. d. ext. longe anguste lanceolati tenuiter subulati pallidi subrugulosi, linea media laevi exarati, int. capillares aequilongi subnodosi rugulosi albidi.

Cryphaea Gorveana Mont. in Ann. d. sc. nat. 1845. p. 99 et in Gay: Hist. de Chile. Bot. Crypt. t. 5. f. 3.

Patria. In arboribus Chiles: C. Gay.

Flores masc. hujusce speciei distinctissimae infra femineos permulti.

50. **P. rufescens** C. Müll.; *monoicum;* caulis pedalis pendulus *tenuissimus amoene aureo-rufescens rigidissimus* geniculato-flexuosus, valde divisus; divisiones *longissimae tenuissimae, rigidissimae,* ramulis *tenuissimis* breviusculis horizontalibus v. reflexis *rigidissimis* alternis remotis ubique insertis veluti pinnatis, *fructibus terminalibus immersis turgidis apice turgide comosis et pulcherrime aureis;* folia caulina appressa, humore *eleganter plumulose patula,* e basi *longe anguste decurrente anguste lanceolato-acuminata stricta,* concava, integerrima, aureo-fusca, nervo subvalido intensius colorato in cuspidem rigidam producto pungentia, cellulis ellipticis conflatis aureis, alaribus marginis basi late revoluti minute incrassate quadratis; perich. e basi angustiore *late squamaeformi-ovata, longissime fusco-pilifera,* caviuscula sublaxius reticulata, nervo tenui subobsoleto excurrente; theca *perfecte inclusa parva globoso-ovata,* operc. conico acuminato recto, calyptra parva laevi, annulo simplici operculo adhaerente; perist. d. ext. breves leptodermes laeves pallide lutei lanceolati, linea media notati, int. multo breviores crenulato-rugulosi tenues.

Cryphaea (Dendropogon) rufescens C. Müll. Linn. XVIII. p. 682. — *Dendropogon rufescens* Schimp. Bot. Zeit. 1843. p. 377. tab. 1.

Patria. Mexico, pr. Oaxaca: Karwinski, in locis non designatis copiosissime legit C. Ehrenberg.

Species ob vestigia laudata distinctissima et pulcherrima. Flos masc. terminalis minutissimus, fol. enervibus.

Sectio VI. **Eupilótrichum.** Caulis *dendroideo-pinnatus* pendulus *frondiformis*. Folia incrassate rotundato-areolata, cochleariformia. Nervi *dorso calloso-prominentes et spinaeformes e dorso folii excedentes bini*. Inflorescentia dioica. Theca immersa v. exserta.

Callicosta C. Müll. Linn. XXI. p. 187.

Hookerias callose binerves sectio referens.

a. *Theca immersa.*

51. P. rugifolium C. Müll.; rami crassiusculi flavide virides; folia caulina latiuscule oblonga, ante apicem breviter acuminatum plerumque paulisper constricta, varie concava *valde rugulosa*, margine tenuissime reflexo, apice *tenuissime denticulato*, nervis *e basi jam divergentibus* tenuibus elongatis, spinae forma distinctae abruptis, superne scaberrimis, cellulis minutis pallidis firmis ob papillas scabris; perich. exserta longe lanceolato-acuminata plicata complicate concava scaberrima *grosse denticulata* obsoletinervia, superne margine valde reflexa, cellulis linearibus longioribus; omnia basi crocea; theca immersa brevissime pedunculata, ovalis tenella ore constricta pallide fusca, operculo conico subulato recto acuto croceo, calyptra minuta operculum solum detegente, pilis rectis copiosis robustis articulatis hirta; perist. ext. angustum obscure pallidum et articulatum carnosum, interna cilia tenuia subrugulosa solida.

Neckera hypnoides Hook. in schedulis.

Patria. Insula Owyhee Australiae: Hook. Hb.

A *P. hypnoide* notis cursive impressis facile distinguitur.

52. P. hypnoides P. B. (Prodr. p. 83.); *P. rugifolio* simillimum, sed differt: nervis binis *infima basi in unicum coalitis et supra basin tantum divergentibus, veluti furcam musicorum formantibus, foliis haud rugulosis et perichaetialibus haud denticulatis.* †.

Brid. II. p. 269. — *Daltonia hypnoides* Arn. Disp. p. 54. — *Callicosta hypnoides* C. Müll. Linn. XXI. p. 188. — *Neckera hypnoides* Hedw. Musc. Frond. III. p. 43. t. 17. — *Fontinalis hypnoides* Swartz Prodr. Fl. Ind. Occ. p. 138.

Patria. Jamaica, in truncis arborum montium altissimorum: Swartz.

b. *Theca exserta.*

53. P. compositum P. B. (Prodr. p. 82.); folia caulina *cochleariformi-ovata* subacuminata, margine vix v. paulisper reflexo, nervis *crassis flavidis* subglabris in spinam distinctissimam productis, *ante apicem summum abruptis*, cellulis punctiformi-rotundatis; perich. lanceolato-acuminata acuta obsoletinervia; theca in ped. breviter exserto turgide ovalis fusca, operc. conico subulato curviusculo pallidiori; perist. ext. dentes latissimi pallidi valde trabeculati magni, interni lati membranacei carinati imperforati; calyptra pilosa.

Brid. II. p. 262. — *Daltonia composita* Arn. Disp. p. 54. — *Callicosta composita* C. Müll. Linn. XXI. p. 188. — *Orthotrichum compositum* Brid. Musc. Rec. II. II. p. 32. t. 1. f. 1. — *Neckera composita* Hdw. Sp. Musc. p. 203. t. 46. — *Hypnum compositum* Sw. Prodr. Fl. Ind. Occ. p. 141.

Patria. Jamaica interior, supra truncos arborum sylvestrium: Swartz. Venezuela, prov. Caracas: Moritz.

P. bipinnato simillimum.

54. P. bipinnatum Brid. (II. p. 263.); *P. composito* simillimum, sed differt: foliis *minoribus tenuioribus minutius areolatis*, magis acuminatis, basi paulisper constrictis, nervis *tenuibus pallidis*; theca *minute obovalis tenella* et peristomio *angustiori.*

Callicosta bipinnata C. Müll. Linn. XXI. p. 189. — *Daltonia bipinnata* Arn. Disp. p. 55. — *Neckera bipinnata* Schw. Suppl. I. II. p. 156. t. 83.

β. filinerve; nervi dorso filis longis fasciculatis articulatis obtecti.

γ. evanescens; folia distinctius scabra, margine ob papillas denticulata, nervis magis attenuatis vix forma spinae abruptis. *C. evanescens* C. Müll. Linn. XXI. p. 189.

Patria. Surinam, in sylvis humidis: Kegel, Focke. Guiana Gallica: Richard primus legit. Trinidad Antillarum, ubi in locis multis copiosissime legit Crüger. Guadeloupe: Bertero. Var. *β.* in insula Trinidad, ubi in monte Tocuche sterilem legit Crüger 1847. 14. Mart. Var. *γ.* in Surinam et Trinidad.

55. **P. affine** Brid. (II. p. 261.); *P. composito* proximum, sed differt: foliis *rigidis densius imbricatis, e basi late ovata longiuscule acuminatis, robustius et elliptice areolatis,* nervis crassis flavidis longioribus, perich. *longe* acuminatis obsoletinervibus, theca *cylindracea tenella, peristomio angusto.*

Catticosta affinis C. Müll. Linn. XXI. p. 188. — *Daltonia affinis* Arn. Disp. p. 54. — *Neckera affinis* Hook. Musc. Exot. tab. 122. — *N. composita* var. *β.* Schw. Sp. Musc. I. II. p. 155.

Patria. Insula St. Vincentii: Menzies Hb.; *Domingo*: Bertero.

Sectio VII. **Pteróbryum** Hsch. Fl. Bras. I. p. 50. — Caulis primarius repens, secundarius erectus *inferne nudus, superne dendroideo-pinnatus, densifolius; folia ubique inserta, cymbiformi-concava,* longitudinaliter plicata, v. laevia, 1—2 nervia. *Nervi tenues haud callosi.* Theca immersa.

Climacium Neckerae generis ex habitu referentia.

a. *Folia uninervia.*

56. **P. Hornschuchii** C. Müll.; *dioicum;* caulis primarius repens, secundarius erectus, *stipite elato nudo nigrescente,* superne dendroideo-pinnatus, ramis breviusculis simplicibus v. longioribus parce divisis, pallide viridibus densifoliis *compressiusculis, ditissime fructiferis;* folia caulina erecto-imbricata, humore patula, e basi brevissima coarctatâ anguste ovato-lanceolata, *ubique cymbiformi-concava, valde longitudinaliter plicata, margine basi parum involuto, supra basin latiuscule revoluto, ubique fere serrulato, nervo tenui ante apicem evanido,*

cellulis *anguste linearibus firmis scariosis* et cum alaribus, auriculam angustam sistentibus, incrassatis badiis; perichaetia turgide exserta, foliis cylindraceo-convoluta pallida late lanceolato-acuminata longiuscula, elongate pallide basi pellucide fuscidulo-reticulata *tenuinervia* vel *enervia;* theca immersa ovalis, ore coarctato parvo, badia, exannulata, operc. breviter conico recto, calyptra minuta glabra fusca; perist. d. ext. lanceolato-acuminati angusti *aequidistantes* dense trabeculati, linea longitudinali obsoleta notati, incrassati lutei, dein badii, int. irregulares fugacissimi albidi membranacei, externis adglutinati breviores.

Pterobryum densum Hsch. Fl. Bras. I. p. 50. — *Pterogonium densum* Schw. Suppl. III. 1. 2. t. 243, quoad specimen Brasiliense! excl. Syn. Swartz. — *Cryptotheca densa* Hsch. in Musc. Mexic. a Deppe et Schiede lectis. Speciminibus pro descriptione nostra usi sumus.

Patria. Mexico: Deppe et Schiede; Brasilia: Sellow. Venezuela, in montibus nivosis Meridae: Moritz.

Ob vestigia cursivis litteris indicata a *P. filicino* proximo toto coelo diversum.

57. P. filicinum P. B. (Prodr. p. 83.); *dioicum*; caulis secundarius *humilis, stipite brevi, foliis remotis squarrosis minutulis obtecto*, superne ramis *brevissimis crassis densissime approximatis*, indistincte seriatim foliosis; folia caulina dense imbricata, *brevius* anguste ovato-acuminata, *cavitate ante apicem abrupta, folia igitur apice impressa, longitudinaliter rugosa, haud plicata, subintegerrima*, nervo *crassiusculo excurrente*, cellulis *minute ellipticis*, margine *apice solo revoluto;* perich. longe lanceolato-acuminata, *vaginantia, non convoluta, nervo in cuspidem longissimam substrictam crassam integram producto;* theca majuscule ovalis, ore minori subcoarctato, badia, operc. breviter conico obtuso; perist. d. ext. longe infra orificium oriundi parum exserti lanceolati geminati breves rufescentes, int. *P. densi.*

Brid. II. p. 257. — *Neckera filicina* Hdw. Musc. Fr. III. t. 18. p. 45. — *Fontinalis filicina* Sw. Prodr. Fl. Ind. Occ. p. 138. — *Hypnum filicoides* Gmel.

Patria. Jamaica australis, in montibus excelsis pr. Coldspring: Swartz. Hispaniola: Green 1796. S. Yago de Cuba, Mont Liban, alt. 3500 pedum: Funck et Schlim 1844, Majo, Coll. Linden. No. 2197. *bis.*

A *P. denso* caracteribus explicatis longe distinctum.

58. **P. angustifolium** C. Müll.; *dioicum;* caulis secundarius *subhumilis magis compressus laxissime foliosus,* stipite brevi, foliis remotis tenerrimis squarrosis obtecto, ramis breviusculis *mollissimis tenuiter ramulosis* v. simplicibus 1—2 pinnatus; folia caulina *P. filicini,* sed *multo angustiora,* margine *ubique denticulato,* nervo *tenuiore ante apicem evanido,* cellulis *anguste linearibus;* perichaetia turgide exserta, foliis nervo in cuspidem *maxime elongatam* subintegerrimam producto lato rufescente piliferis, *infra pilum denticulatis.*

Patria. Insula Trinidad Antillarum, ubi in monte *Tocuche,* 3400 ped. alto, 1847 Crüger legit.

Fructum perichaetii unius vetusti non vidimus; species pulcherrima et notis cursive impressis a *P. filicino* distinctissima.

59. **P. Symphysodon** C. Müll.; *dioicum?* caulis primarius repens filiformis nudus, stoloniferus vage ramosus, secundarius erectus inferne nudus, superne dendroideo-pinnatus v. bipinnatus, ramis compressiusculis; folia caulina dense imbricata suboctofaria erecto-patentia, *humore horizontalia, latiuscule* cymbiformi-oblongo-lanceolata, cavitate ante apicem abrupta, folia igitur apice subimpressa, acumine brevi *latiusculo remote grosse dentato,* haud plicata, nervo *ad medium evanido,* cellulis angustissime linearibus viridibus, margine vix revoluto; perichaetia turgide exserta patulifolia, foliis late vaginantibus lanceolato-acuminatis longis *enervibus plicatis, acumine remote grosse serrato;* theca immersa ovato-cylindracea submicrostoma fuscescens, operc. convexo rostrato, ca-

lyptra mitraeformi, basi incisula, sparse pilosa; perist. d. ext. regulariter geminati lanceolati ut interni *P. filicini.*

Symphysodon neckeroides Dz. et Molkb. Ann. d. sc. nat. 1844. p. 314.

Patria. Borneo, Sumatra: Korthals.

A *P. filicino* et *angustifolio* caracteribus explicatis differt.

60. **P. convolutum** C. Müll.; caulis repens filiformis nudus, ramis erectis dendroideis, inferne subaphyllis, distiche ramulosis; folia suboctofaria erecta, lateralia erecto-patentia ovato-lanceolata acuminata integerrima, *versus apicem convoluta* nitida stricta, nervo tenui ad medium folii fere evanido; perich. latiora duplo longiora filiformi-acuminata, obsoletinervia; theca in ped. brevissimo, intra folia perich. immersa, ovato-oblonga.

Neckera convoluta Dz. et Molkb. Ann. sc. nat. 1844. p. 312.

Patria. Java.

b. *Folia binervia.*

61. **P. cochlearifolium** C. Müll.; *monoicum;* caulis erectus, supra basin brevem subsquamoso-foliosam ramis brevibus simplicibus v. longioribus iterum ramulosis *remotis turgidis obtusiuscule acutatis* pallescenti-viridibus 1—2 pinnatus; folia caulina erecto-appressa turgide concava, e basi *auriculato-rotundata* fuscâ *late cochleariformi-oblonga,* cavitate ante acumen breve latiusculum abrupta, haud plicata, *ubique integerrima,* margine erecto v. parum involutaceo, nervis binis brevibus, cellulis elongatis anguste linearibus; perichaetia exserta, foliis late vaginantibus longe lanceolato-acuminatis, superne subdenticulatis, longius laxius reticulatis, enervibus; theca immersa c. calyptra, operculo et peristomio omnino *P. densi.*

Cryptotheca cochlearifolia Hsch. in Musc. Mexic.

Patria. Mexico: Deppe et Schiede.

62. **P. cylindraceum** C. Müll.; *dioicum?* caulis secundarius dendroideo-bipinnatus humilis, stipite plerum-

que jam basi squamaeformi-folioso, ramis inferioribus subfasciculatim superioribus pinnatim divisis compressis; folia caulina erecto-patentia, cymbiformi-ovato-acuminata angusta, *haud plicata* integerrima, nervis *binis* inaequalibus brevibus, elongate angustissime lineari-areolata, submollia, viridia; perichaetia *longe anguste cylindracea*, foliis dense appressis, externis ovatis brevibus, internis lanceolatis longe acuminatis *subenervibus;* theca immersa *cylindracea gracilis longa* pachyderma, *ore non constricta*, fusca; perist. d. ext. *P. filicini.*

? *Neckera cylindracea* Mont. Ann. d. sc. nat. 1848. p. 109.

Patria. Taïti?: Lepine.

Pterobrya incerta.

1. **Pterobryum obliquifolium** Hsch. (Fl. Bras. I. p. 51.); caulis secundarius altiusculus superne inordinate bipinnatim ramosus, dense foliosus complanatus; folia imbricata disticha cordato-ovata obliqua mucronulata, valde concava, integerrima, tenera, pellucida, nitentia, luteo-viridia, nervo tenerrimo versus medium evanescente concolori, cellulis oblongis confertis. †.

Patria. Brasilia, in cortice arborum: Sellow.

2. **Neckera crenulata** Harvey (Ic. Pl. Rar. Hooker. t. 21. f. 6.); *monoica?* caulis secundarius 3—6 pollicaris pendulus, irregulariter pinnatus *inordinate distichophyllus*, pallide viridis; folia caulina laxe imbricata, siccitate flexuosa, humore haud distincte distichacea, e basi *cymbiformi-concava latiuscula margine involutâ attenuato-ligulata obtusa, summo apice eroso-dentata*, plus minus longitudinaliter plicata, incrassate elliptico-areolata, nervo unico longiusculo tenui interdum furcato; theca perichaetio fimbriato, e foliis subulatis multis constructo, immersa.

C. diagnosi in Lond. Journ. of bot. 1840. p. 13.

Patria. Nepal.

Fructum non vidimus.

Sectio VIII. **Erpodium** Brid. II. p. 167. — Plantae cladocarpicae *humillimae pusillae tenellae* parce divisae, subcompressae v. teretes. Folia ovate-acuminata, e cellulis *laxis amplis bryoideo-rhomboidalibus* composita. Theca gymnostoma exserta minutissima.

Aulacopilo generi proxima sectio.

63. P. coronatum C. Müll.; *monoicum;* repens *densissime cespitosum* tenellum exiguum, ramulis brevissimis *teretibus veluti gemmaeformibus erectis densissime foliosis* viridulis; folia caulina *arcte squamuloso-appressa*, e basi amplexicauli *latissime rotundato-ovata obtusa, apiculata*, enervia, caviuscula, margine erecto integerrimo, cellulis amplissimis, inferne (c. alaribus) depresso-rhomboidalibus, intus utriculo primordiali valde repletis, pellucidis, haud *obscuris*, apice *bryoideo-prosenchymaticis;* perichaetia *turgida clausa* exserta, in ramo fertili breviter elongato terminalia, foliis *latioribus pellucidioribus, e cellulis ubique aequalibus bryoideo-prosenchymaticis compositis;* theca *immersa* oblonga, gymnostoma mollis leptodermis, ore crasso, calyptra magna *turgescenti-campanulata* 16-sulcata, *ad plicas valde verrucosa*, basi 16-laciniata.

Erpodium Brasiliense C. Müll. Bot. Zeit. 1845. p. 90. — *Anoectangium? coronatum* Hook. et Wils. Lond. Journ. of bot. 1844. p. 150.

Patria. Brasilia, prov. Ceará pr. Cachoeira ad arbores: G. Gardner. No. 32. G. 1. mense Julii 1839 legit. Rarissimum!

A *P. Domingensi* notis cursive impressis distinctissimum. *Orthotricho obtusifolio* haud dissimile.

64. P. Domingense C. Müll.; *monoicum;* repens tenellum exiguum *subcespitosum subdepressum* vage ramosum viridulum; folia *laxe squamuloso-imbricata*, e basi subamplexicauli *ovato-oblonga obtusa v. obtuse acuminulata*, enervia planiuscula, margine erecto integerrimo, cellulis amplis, inferne (c. alaribus) laxe quadratis rhomboidalibus, apice rotundate prosenchymaticis, omnibus aequalibus teneris intus valde granulosis igitur obscuris; peri-

chaetia *longius exserta ocreate patula*, in ramulo fertili breviter elongato terminalia, vaginantia longiora, caulinis similia; theca in ped. *breviter exserto* carnoso flavido erecta minuta pallida leptodermis anguste oblonga gymnostoma, ore sublacerato parum coarctato, operc. conico brevi; calyptra $^2/_3$ thecae obtegens sublamelloso-sulcata glabra pallida.

Erpodium Domingense C. Müll. Bot. Zeit. 1843. p. 773. — *Anoectangium Erpodium Domingense* Brid. II. p. 167. — *Anoectangium Domingense* Spreng. in litt. ad Balbis. — Schwägr. Suppl. III. II. 1. t. 267.

Patria. Hispaniola, ubi ad arbores semel legit Bertero. Rarissimum!

65. **P. Perrottetii** C. Müll.; *monoicum? P. Domingensi* simillimum, *laxissime foliosum tenerrimum, vix depressum;* folia caulina *ovato-acuminata*, cellulis *elongate prosenchymaticis*, amplis pellucidis, utriculo primordiali ubique repletis, *alaribus ad alas basilares tantum evolutis* laxe quadratis depressis teneris pellucidis; perichaetia in ramo fertili breviter elongato *laxissime remote foliosa, foliis subreflexis acuminatioribus quam caulinis;* theca *sessilis, sed ob folia perichaetialia remota distincte conspicua truncato-oblonga macrostoma* tenerrima.

Leptangium Perrottetii Mont. in litteris. — *Schistidium Perrottetii* Mont. Ann. Sc. nat. IX. 1838. p. 51.

Patria. Senegambia, ubi ad terram nudam arenosam repens legit Perrottet. Rarissimum!

Operculum et calyptra desunt quidem, species tamen e structura tota procul dubio huc pertinet.

Species e sectione et genere incertae.

1. **Neckera blanda** Harv. (in Hook. Ic. Pl. Rar. t. 22.); caulis secundarius erectus bipinnatus rigidus, pulchellus parvulus; folia laxe imbricata crispatula, e basi late ovata subito lanceolata brevia, superiora sensim lanceolata, margine reflexo ubique serrato, nervo valido apicem subattingente; theca in ped. perbrevi erecta, turgide ovata parvula, operc. conico acuminato recto. ☥.

Cum descriptione in Lond. Journ. of bot. 1840. p. 14.

Patria. Nepal: Wallich.

Pilotrichum delendum.

? **P. denticulatum** P. B. (Prodr. p. 84.); caule erecto? subsimplici, foliis ovatis obtusis, marginibus dentato-spinosis; calyptra campanulata. †.

Brid. II. p. 266.

Patria. Insula Bourbonis: Aubert du Petit Thouars.

An *Mniadelphus?*

Gen. V. **Aulacópilum** Wils.

Lond. Journ. of bot. 1848. p. 90.

Nomen ab *αὔλαξ sulcus* et *πῖλον calyptra* ductum.

Calyptra ***dimidiata*** thecam omnino obtegens et basi more ***Calymperis*** includens ***plicata***. Peristomium nullum.

Ex analogia *Erpodii*, habitu, ut videtur, proximi ad *Neckeraceas* duximus.

Patria. Nova Seelandia.

1. A. glaucum Wils. (l. c. p. 91. t. 4.); exiguum depressum parce divisum gracillimum compressum glaucum; folia dense bifaria, e basi ovata oblique acuminata flaccida planiuscula enervia, margine ob papillas crenulato erecto, cellulis ampliusculis brevibus prosenchymaticis glauco-viridibus granulosis; perich. erecta lanceolata appressa minora concava; theca in ped. perbrevi pallido carnosulo laterali erecta minutissime ovata pallida glauco-viridis truncata, exannulata, operc. conico-rostellato recto, calyptra laevi magna. †.

Patria. Nova Seelandia, ad truncos *Fabroniis* associatum.

Subtribus II. HYPNACEAE.

Peristomium internum ciliis interpositis.

Gen. VI. **Hookeria** Sm.

Transact. of Linn. Soc. IX. p. 275. — *Pterygophyllum*, *Lepidopilum* et *Eriopus* Brid. — *Chaetomitrium*, *Holoblepharum* et *Distichophyllum* (ex parte) Dz. et Molkb. — *Neckera*, *Leskea* et *Hypnum* antiq.

Nomen in honores ill. Sir William Jackson Hooker conditum.

Calyptra *mitraeformis*. Peristomium duplex: dentes externi lanceolato-subulati, linea media longitudinali plus minus lata exarati, trabeculati, interni in membrana plus minus alta carinata subulati, haud ciliiformes, ciliis rudimentariis vix conspicuis vel rarius perfectis interpositis.

Patria. Terras praesertim calidas v. tropicas, Europam species tantum duae habitantes.

Sectio I. **Euhookeria.** Cellulae foliorum *laxae* laeves; folia acuminata pellucida, amoene reticulata, *marginata*, nervis callosis; caulis *decumbens complanatus*.

a. *Late complanatae*.

1. **H. laete-virens** Hook. et Tayl. (Musc. Brit. ed. I. p. 89. t. 27.); *monoica; latiuscule complanata* laete viridis procumbens; folia caulina laxe conferta, e basi subrotundate *late ovata concavâ late ovata longe acuminata*, ubique limbo tenui pallido apice solo obsolete denticulato praedita, nervis binis pallidis ante apicem evanidis glabris, summo apice plerumque dorso folii breviter aculeiformibus, cellulis ubique laxis pellucidis, *utriculo primordiali instructis*; perich. interiora multo minora late lanceolata acuminata tenuiora obsolete nervosa v. enervia immarginata integerrima; theca in ped. elongato crasso purpureo laevi tortili *turgide ovalis pendula*, operc. conico subulato, calyptra carnosa basi subintegra; perist. magni dentes ext. pulcherrime rubri, linea longitudinali lata exarati, interni flavidi aequales laeves carinati vix perforati.

H. albicans Tayl. Fl. Hib. II. p. 36. — Schw. Suppl. II. II. 1. t. 163. — *Pterygophyllum laete-virens* Brid. II. p. 350.

Patria. Hibernia, in paludosis; Dunscombe's wood pr. Cork: J. Drummond 1815 detexit, ad O'Sullivan's Cascade et Turk Waterfall pr. Killarney: W. H. Harvey.

Flos masc. subturgide gemmaceus; fol. perig. perichaetialibus similia; antheridia turgida brevia, paraphysibus brevissimis cincta. Ex habitu *Pterygophyllo lucenti* similis; quoad patriam memorabilis.

2. **H. nivalis** C. Müll.; *dioica? H. laete-virenti* simillima, latiuscule complanata, pallide viridis v. rufescens, parce divisa; folia *integerrima, e cellulis ubique pellucidis inanibus irregularibus reticulata;* perich. varie complicata, veluti undulata, caulinis similia, interna angustissime lanceolata longissime acuminata *marginata* enervia; theca, pedunculus et peristomium *H. laete-virentis.*

Patria. Venezuela, prov. Merida, in montibus nivosis inter *Hypopterygium nivale:* Moritz.

Species pulcherrima.

b. *Anguste complanatae.*

3. **H. marginata** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 160.); fastigiatim ramosa, ramis brevibus parum et anguste complanatis rufescentibus; folia laxiuscule conferta, sicca erecta vix crispata, e basi latissime truncata ovato-acuminata, *in acumen longiusculum valde limbatum producta,* limbo *ubique distinctissimo composito apice denticulato,* nervis longis fuscatis ante apicem abruptis tenuibus, cellulis ubique laxis, basi majoribus, irregularibus rigidis hyalinis pallide fuscatis; theca ovata cernua, operc. rostrato, calyptra laevi pallida carnosa.

Patria. Brasilia: Gardner No. 87.

Ab *H. Olfersiana* caracteribus cursive impressis distat; sterilem tantum vidimus.

4. **H. Olfersiana** Hsch. (Fl. Bras. I. p. 61. t. 3.); *monoica;* anguste complanata tenella parvula dilute viridis; folia caulina laxiuscule conferta, e basi angustiore

latiuscule ovata, sensim et latiuscule acuminata, basi caviuscula, limbo tenuissimo *e cellularum serie unica formato integerrimo*, cellulis ubique amplis pachydermibus inanibus *irregularibus* hyalinis, nervis ultra medium productis tenuibus; perich. *lanceolata longissime acuminata* enervia; theca in ped. longiusculo glabro minute obovata horizontalis, operculo pallidiori recte subulato, calyptra basi multifida, apice *scabra;* perist. *H. sublimbatae.* †.

Patria. Brasilia, Tijuca in vicinia Sebastianopoleos: Olfers.

Fol. perig. ext. late ovata acuminata, interiora sursum latiora breviora ovata acuta, intima minutissima rotundato-ovata, omnia profunde concava enervia densius reticulata. Calyptra, in contextu glabra dicta, in tabula scabra delineata est. *H. albicanti* quoad staturam similis.

5. **H. cuspidata** C. Müll.; *monoica; H. Olfersianae* simillima, sed folia *subhomomalla, e basi late truncata ovata sensim longissime et tenuissime acuminata* integerrima v. obsolete denticulata, limbo indistincto, nervis tenuibus, cellulis *elongate prosenchymaticis rhomboidalibus magnis laxis subinanibus;* perich. interiora *angustissime* lanceolata longissime acuminata enervia; theca in ped. longiusculo ascendente glabro horizontalis obovata; perist. *H. sublimbatae.*

Patria. Venezuela: Moritz.

Folia ramulorum juniorum saepe subenervia. Flos masc. minutus *quadrifolius,* fol. perig. *omnibus longiuscule anguste lanceolato-acuminatis,* anth. paucissimis parvulis.

6. **H. albicans** Hook. (Musc. Brit. 1818. p. 90.); *monoica?* anguste complanata pallida tenella; folia caulina e basi angustâ *anguste oblonga late et sensim acuminata, rigida,* aequaliter concava, limbo ubique tenuissimo albido *subincrassato superne angulate flexuoso, igitur brevissime nodiformi-denticulato,* cellulis *ubique laxissimis, maxime pellucidis, magnis aequalibus, inanibus, rigidis, haud facile madore emollientibus,* longiuscule rhomboidaliter prosenchymaticis, parietibus albidis, nervis ultra me-

dium productis tenuissimis albidis; perich. minora tenerrima, e basi concava ovata enervi acuminata, immarginata; theca in ped. longo laevi horizontalis minute obconica, operc. conico subulato, calyptra laevi basi late multifida; perist. parvum.

Pterygophyllum albicans Brid. II. p. 349. — *Leskea albicans* Hdw. Sp. Musc. p. 218. t. 54. et Swartz Fl. Ind. Occ. III. p. 1811. — *Hypnum albicans* Sw. Prodr. Fl. Ind. Occ. p. 140. — *H. albens* Gmel. Syst. Nat. II. p. 1343. — *H. pallidum* Brid. Musc. Rec. II. II. p. 127.

Patria. Jamaica, in truncis vetustis emortuis regionis temperatioris udorum: Swartz.

Ico tabulae Schwägrichenianae haud bona, caule nimis lato.

7. **H. Auberti** C. Müll.; *monoica? H. albicanti* simillima; folia caulina *late oblongo-ovata,* acumine breviusculo subito fere terminata, *flexuosa, igitur inaequali-concava, flaccida, facillime humore emollientia,* limbo *crassiusculo laxiusculo pellucido, dein flavidulo,* superne remote subangulate obsolete denticulato, nervis *crassiusculis flavidulis ante* apicem subabruptis, cellulis *amplis aequaliter hexagonis mollibus, parietibus haud albidis, sed chlorophyllosis;* perich. caulinis multo minora, tenerrima, e basi concava ovata acuminata, enervia; theca in ped. elongato glabro.

Pt. albicans Brid. II. p. 349. — *Neckera Auberti* ej. Sp. Musc. II. p. 28. — *Racopilum Auberti* P. B. Prodr. p. 87.

Patria. Insula Franciae: Aubert du Petit Thouars.

Thecam non vidimus.

8. **H. vesiculosa** C. Müll.; *monoica? H. albicanti* simillima; folia caulina e basi *truncatâ* anguste oblonga, late et sensim acuminata, *mollissima flaccida,* aequaliter concava, limbo ubique tenuissimo, e cellularum serie unica composito, *haud incrassato,* superne angulate flexuoso, igitur brevissime nodiformi-denticulato, cellulis ubique laxissimis, maxime pellucidis, amplis aequalibus, inanibus, *mollissimis, parietibus chlorophyllosis,* nervis ultra me-

um productis *tenuibus*, subalbidis; perich. *H. albican-s;* pedunculus elongatus glaber.

Pteryg. albicans Brid. II. p. 349. — *Hypnum vesiculosum* rid. Sp. Musc. II. p. 100.

Patria. Insula Bourbonis: Bory St. Vincent.

Thecam non vidimus.

9. **H. Jagiana** C. Müll.; *H. albicanti* similis, sed lia *tenerrima flaccida, haud rigida, multoties compli-ta torta, e basi lata veluti truncatâ latius oblonga, ice subito fere longe et tenuissime acuminata*, limbo nuissimo albido minus angulate flexuoso subintegerrimo rius apice tenuissime denticulato, *cellulis tenerrimis fa-lime madore emollientibus, nervis ad apicem fere pro-ctis*, distinctius spinaeformi-abruptis.

Pterygophyllum albicans C. Müll. Linn. XIX. p. 213.

Patria. Venezuela, Jagi prov. Merida: Moritz in-r *Mnium rostratum.*

Sterilem tantum vidimus.

10. **H. sublimbata** C. Müll.; *monoica; H. Jagianae* milis, sed viridior, folia e basi truncatâ oblonga, apice ubito fere mucronato-acuminata, *limbo e cellularum se-ie unica formato*, superne subangulate flexuoso obsolete enticulato, nervis obscurioribus ultra medium productis inus distincte spinaeformi-abruptis, cellulis laxis *par-ulis mollibus valde pachydermibus;* perich. *angustissima onge acuminata* obsoletinervia; theca in ped. longiusculo glabro ascendente; calyptra glabra basi multifida; perist. angustum longum *H. laete-virentis.*

Patria. Chile: Pöppig.

Flos masc. subturgidus; fol. perig. late ovata con-ava breviter et saepe reflexo-acuminata enervia; anth. auca, paraphysibus tenuissimis cincta.

11. **H. albata** C. Müll.; *monoica? H. sublimbatae* roxima, sed *albida*, folia *longius acuminata, apice re-urviusculo*, limbo apice *distincte denticulato*, cellulis *ma-ribus multo tenerioribus;* perich. caulinis *paullo angu-*

stiora; theca in pedunculo *elongato* glabro oblonga, longe operculata, suberecta, minuta.

Patria. Insula Trinitatis, inter *Rhacopilum insigne* Hsch.: Sieber coll. No. 19.

Sectio II. **Lepidópilum** Brid. II. p. 267. — Cellulae foliorum elongatae *plus minus densae et angustae* laeves; folia *immarginata*, nervis plerumque tenuibus vix callosis, interdum nullis; caulis *decumbens pinnate complanatus.*

Ab *Euhookeriis* foliis immarginatis, siccitate plerumque complicatis et caule pinnatim complanato plantae distinctae.

a. *Folia serrata.*

12. **H. incurva** Hook. et Grev. (in Brewster Edinb. Journ. 2. p. 231.); *monoica;* latissime cespitosa amoene viridis, dein amoene rufescens procumbens latiuscule complanata valde ramosa; folia caulina laxe imbricata, sicca crispata, *late oblongo-ligulata maxime obtusa,* immarginata, *sed margine supra basin denticulatam dentibus magnis apice excisis dense grosse duplicato-serrata;* nervis crassiusculis ultra medium productis spinoso-abruptis et dorso spinosis, cellulis foliorum viridium chlorophyllosis, rufescentium inanibus, laxis magnis regulariter angustiuscule prosenchymaticis; perich. *late ovata profunde concava tenera breviter acuminata enervia integerrima* v. *externa apice solo serrata;* theca in ped. *longissimo* crasso purpureo laevi *elongate cylindrico-oblonga,* ore constricta, nutans v. horizontalis, plus minus fuscata, operc. conico oblique rostrato concolori, calyptra magna campanulata multifida glabra; perist. magnum, internum flavidum haud perforatum.

Chaetephora incurva Hsch. Hor. Phys. Berol. p. 65. t. 13. — Brid. II. p. 336. — Schwägr. Suppl. III. II. 1. t. 275.

Patria. Chile: A. de Chamisso. Brasilia, ubi haud rara videtur: Gardner et al. In insula Trinidad Antillarum copiose legit Crüger in montibus Tamanaco 10. Majo et Tocuche 14. Mart. pulcherrime fructiferam.

Quoad notas illustratas cum nulla specie alia confundenda. Flos masc. turgide gemmaceus, fol. perig. e basi late ovata convolutacea tenerrime reticulatâ ligulate acuminata duplicato-serrata enervia, anth. parvis et paraph. tenuissimis longioribus.

13. **H. Langsdorfii** Hook. (Musc. Exot. t. 121.); *hermaphrodita;* longe repens, prostrata, inaequaliter complanata et irregulariter ramosa, sordide viridis, dein rufescens, subnitida, robusta; folia caulina undique laxiuscule inserta, sed disticha directione, *ovata subacuminata et mucrone brevi lineari terminata, membranacea, rigidula, dentibus albidis apice veluti marginate evidenter simpliciter serrata,* nervis ultra medium productis callosis lutescentibus, cellulis *subtilibus linearibus, veluti in membranam conflatis, vix conspicuis,* pallide viridibus pellucidis; perich. e basi late ovata concava enervi longiuscule anguste acuminata, integerrima; theca in ped. longiusculo glabro tenui inclinata *minute ovalis,* operc. conico longiuscule oblique curvato, calyptra pallide fusca *laevi,* superficie archegoniis nonnullis obtecta; perist. d. ext. linea media latiuscula exarati, interni aequales laeves. †.

Chaetephora Langsdorfii Brid. II. p. 337. — Schw. Suppl. II. t. 162.

Patria. Brasilia, pr. Rio Janeiro: de Langsdorff.

Cum *H. incurva,* quacum Schwägrichen (sec. loc. natale, in Serra d'Estrella designatum) commutavit, notis cursive impressis nunquam confundi potest.

14. **H. nitens** Hsch. (Fl. Bras. I. p. 65.); *dioica?* repens, vage ramosa, ramis elongatis complanatis pennaeformibus, interdum breviter ramulosis, luteo-viridis nitens; folia caulina patentia, apice subrecurvata, oblongo-acuminata, basi subdimidiata seu pterygoidea, concava, apice remote et argute serrata, nervis laxis tenuissimis, vix conspicuis, infra medium evanidis, cellulis angustis parallelogrammmis; perich. teneriora, enervia, laxius reticulata, ovato-acuminata, integerrima, hyalina,

interiora sensim minora; theca in ped. erecto, apice incrassato, laeviusculo suberecta ovata brevis, calyptra basi 6—8-fida, glabra; perist. d. ext. linea media diaphana exarati, subtilissime trabeculati, margine scaberuli, intense rufi, interni pertusi. †.

Patria. Ad truncos putridos sylvarum umbrosarum prope Novo-Friburgum, societate *H. subenervis* (?): Beyrich mense Decembr. legit.

Cui affinis?

15. **H. Parkeriana** Hook. (Spr. Syst. Veget. IV. p. 197.); caulis elongatus, ramis complanatis; folia bifariam imbricata, oblonga acuta, undulata, apice serrulata, nervis infra apicem evanidis; theca oblonga horizontalis, calyptra laciniata. †.

Patria. Surinam.

Cui affinis?

16. **H. Pappeana** Hmp. (Ic. Musc. t. 2.); *monoica;* prostrata latiuscule complanata vage pinnatim ramosa appressa laete viridis; folia caulina laxissime imbricata, sicca subtorta angusta, madefacta e basi asymmetrica late ovata late oblongo-acuminata, planiuscula, margine apicis dentibus simplicibus *vel apice minute duplicatis grossiuscule serrata,* nervis brevibus ad medium productis tenuibus pallidis, *plerumque dentis forma abruptis et saepe dorso parce dentatis,* cellulis elongatis laxis ob utriculum primordialem pachydermibus chlorophyllosis veluti densis; perich. multo minora anguste acuminata binervia; theca in ped. longiusculo gracili flexuoso apice inclinato incrassato oblongo-cylindracea, ore constricta, operculo conico-acuminato recto, calyptra late multifida *glabra,* perist. majusculo congenerum.

Patria. Prom. b. spei, Zwellendam, ad truncos arborum: Pappe in Hb. Kunzeano.

Flos masc. minutus; fol. perig. perichaetialibus similia, sed multo teneriora.

b. *Folia denticulata.*

α. Pedunculus scaber.

17. **H. Mülleri** Hmp. (Linn. XX. p. 84.); *monoica; H. Pappeanae* similis, sed *latius complanata*, folia *dense conferta* minus torta, e basi *symmetricâ* late ovato-lanceolata, *acumine tenui terminata, margine ubique revoluto, apice simpliciter denticulato*, nervis *tenuissimis glabris, tenuiter haud dentiformi-abruptis*, cellulis elongatis *angustis pellucidis leptodermibus haud chlorophyllosis;* perich. caulinis similia, sed convolutacea, teneriora et enervia; theca in ped. breviusculo gracili flexuoso *ciliato-papilloso suberecta elliptica leptodermis* glaberrima pallida, plein fuscescens, operculo *turgide conico* subulato, calyptra *leptodermi irregulariter fimbriata*, pilis latiusculis *paucis adspersa;* perist. *longissimum:* dentes ext. *lamina exteriore angustissima dense articulata integra rufa, lamina interna multo latiore, maxime prominente rugulose membranacea dense articulata*, interni longissimi subulati illos aequantes rugulose membranacei, fusciduli, haud perforati, sed linea tenuissima pallidiore exarati.

Lepidopilum subenerve C. Müll. Linn. XIX. p. 214.

Patria. Venezuela: Moritz.

Ab *H. subenervi* foliis multo latioribus pellucidis, haud chlorophyllosis, margine reflexis et nervis crassioribus longioribus distat.

18. **H. intermedia** C. Müll.; *monoica;* inter *H. subnervem* et *Mülleri* intermedia; folia *symmetrica, complicate contorta, angustiuscule oblongo-acuminata, obsolete vel valde denticulata*, margine erecto vel basi paulisper revoluto, nervis tenuissimis *brevibus*, cellulis elongatis angustis pellucidis; perich. interna minora angustius acuminata; pedunculus brevis ciliato-papillosus, theca subrecta *anguste cylindraceo-oblonga*, operculo conico-subulato recto, calyptra *glabra;* peristomium *H. Mülleri.*

Patria. Insula Trinidad Antillarum, ubi legit Crüger 14. Mart. et 28. Aug. 1847. monte Tocuche.

Ab *H. subenervi* differt: foliis symmetricis complicate contortis, pellucide reticulatis, margine interdum reflexo et calyptra glaberrima; ab *H. Mülleri* refugit: foliis angustis, complicate contortis, obsolete denticulatis, longius acuminatis, brevinervibus et calyptra glaberrima.

19. **H. Deppeana** C. Müll.; *monoica; H. intermediae* simillima, sed folia *longissime angustissime acuminata*, acumine dentato, *maxime plicata*, *stricta*, *haud contorta*, *angustius reticulata;* folia perichaetialia, pedunculus et theca *H. intermediae*, calyptra *pilosiuscula*.

Lepidopilum subenerve Hsch. in Musc. Mexic. Deppeanis.

Patria. Mexico: Deppe.

20. **H. subenervis** Hmp. (Linn. XXI. p. 84.); *monoica; H. Mülleri* simillima, sed folia *asymmetrico-oblongo-acuminata angusta*, *obliqua*, *minora*, *subplanissima*, *margine plano*, *nervis quam maxime tenuibus subobsoletis brevioribus*, *cellulis chlorophyllose coloratis* vel pellucidis; perich. *longissime et angustissime acuminata;* pedunculus *brevior*, theca *minor*, *magis cylindraceo-oblonga*, calyptra *late multifida haud fimbriate appendiculata.*

Daltonia scabriseta Arn. Disp. p. 54. — *Lepidopilum subenerve* Brid. II. p. 268. — *Pilotrichum scabrisetum* ej. Mant. Musc. p. 141. — *Neckera scabriseta* Schw. Suppl. I. II. p. 153. t. 82.

Patria. Guiana Gallica: Richard. Venezuela, colonia Tovar, altitud. 5500′: Moritz; prov. Caracas, prope Galipan alt. 5000′: Funck et Schlim 1845. Januario Coll. Linden. No. 352.

Specimina *Richardiana* folia perfecte pellucida habent.

21. **H. Grevilleana** Tayl. (Lond. Journ. of bot. 1846. p. 60.); laxe cespitosa, basi ramosa, ramis ascendentibus simplicibus complanatis pallide flavo-viridibus nitentibus; folia subimbricata patentia, *planiuscula undulata*, *oblongo-lanceolata*, *serrulata*, basi binervia; theca in ped. *elongato scaberrimo* subflexuoso inclinata ovata, operc. conico rostrato, calyptra *sursum pilosa;* perist. d.

xt. linea media opaca exarati, int. in membrana brevis-ima positi. †.

Patria. Ad truncos arborum, in sylvis prope Es-ieraldos Andium Quitensium, alt. 3000′: W. Jameson.

Cui affinis?

22. H. chloroneura Tayl. (Lond. Journ. of bot. 1846. . 61.); laxe cespitosa *debilis* procumbens subramosa *longata;* folia laxa *tenuia* patentia, oblonga acuta ser-ata, *scariosa viridia*, nervis *intense viridibus;* theca in ed. scabro *brevissimo* flexuoso inclinata turbinata *mi-uta*, operc. recte rostrato, calyptra basi laciniata. †.

Patria. Monte Pichincha prope Quito: W. Ja-eson.

Ex animadv. *Wilsoni* (l. c. p. 452.) *H. subenervi* si-illima et forsan forma gracilior, nervis perfectius evo-tis, quod non putamus.

23. H. erectiuscula Tayl. (Lond. Journ. of bot. 1846. . 60.); laxe cespitosa, erectiuscula biuncialis complanata allide olivacea, subramosa; folia laxe imbricata patentia enuia oblongo-ovata apiculata serrata, basi binervia, ubstriata flexuosa; sicca contorta; theca in ped. scabro ubunciali erecta elongate obconica; perist. d. ext. an-usti opaci, interni in membrana profunde fissa. †.

Patria. Ad ramos arborum prope Esmeraldos An-um, alt. 6000′: W. Jameson 1827. in Hb. Grevill.

Ex animadv. Wilsoni (l. c. p. 452.) *H. subenervi* af-nis, sed pedunculo longiore foliisque latioribus magis rmmetricis differt.

β. Pedunculus glaber.

24. H. Utacamundiana Mont. (Ann. d. sc. nat. 1842. 247.); *dioica;* latiuscule complanata, parce divisa, pal-le viridis, *dein purpurascens;* folia caulina laxe con-rta, sicca parum flexuosa, e basi *symmetrica* late ovata ncavâ *lanceolato-acuminata, margine hic illic parum flexo, basi obsolete denticulato, apicem versus inaequa-ter serrato*, nervis *longis ultra medium productis palli-*

dis, dein purpurascentibus, crassiuscule cullosis, spinae forma abruptis, glabris, cellulis pellucidis *breviusculis densiusculis et angustiusculis*; perich. in ramulo fertili *longiuscule exserto* posita, e basi late ovata enervi laxe et tenuiter reticulata acuminata *integerrima*, theca in ped. mediocri flexuoso glabro subinclinata oblongo-cylindracea vel subclavata, operc. conico obtusissimo, calyptra glabra; perist. d. ext. linea media latiuscula pallida exarati, interni illos aequantes albidi hiantes.

H. Lindenbergii Hmp. in Linn. XX. p. 85. inedita memorata?

Patria. Montes Neelgherienses, in sylvis prope Ootacamund: Perrottet.

Ex habitu *H. Mülleri* similis, sed nervis, reticulatione et serratura foliorum ab ea ceterisque affinibus longe refugit.

25. H. Patrisiae Hmp. (Ic. Musc. t. 1.); radiculis *stellatim effusis appressa*, effusa, vage ramosa, tenella pulchella, angustiuscule complanata; folia caulina laxe imbricata *contorta, subdimorpha:* illa serierum superiorum e basi symmetrica amplexicauli rotundata ovato-acuminata, acumine parum reflexiusculo et plicato, illa serierum inferiorum longiora oblonga, acumine longiusculo valde reflexo plicato, basi magis asymmetrica, margine interdum medio folii late reflexa, omnia enervia, planiuscula, margine ubique fere denticulato, cellulis angustis elongatis pellucidis; perich. multo minora angustiora et magis acuminata; theca in ped. mediocri gracillimo glabro minute oblonga tenella, operc. conico recte subulato, calyptra *angusta, basi ciliis articulatis elegantes fimbriata* glabra; perist. d. ext. latiusculi subulati, linea media obscura exarati, alterne cellulose articulati, haud trabeculati, interni aequales tenues vix pertusi dense articulati, omnes obscuri rugulosi.

Hypnum Patrisiae Brid. II. p. 539.

Patria. In Cayennae arboribus praesertim in *Patrisia papyrifera*, foliis arctissime adhaerens: Hb. Fecáunum. Brasilia, Monte Video: Sellow. Insula Trinidad,

monte Tamanaco: Crüger 9. Majo 1847 in ramis tenuibus appressam iterum legit.

Notis explicatis, praesertim radiculis stellatim effusis, calyptra fimbriata et peristomio externo haud trabeculato lamina unica praedito, species ab omnibus affinibus distinctissima.

26. **H. diaphana** Walker-Arn. (Disp. d. M. p. 56.); latiuscule complanata *maxime flaccida mollissima*, ramis *elongatis* graminicoloribus, *haud nitida;* folia caulina *laxissime conferta*, bifarie complanata, *mollissima*, *subplanissima*, e basi asymmetrica, latere unico complicata *asymmetrico-ovata*, *obliquiuscule acuminata*, superne *vix denticulata*, nervis ad medium fere productis tenuibus, cellulis elongatis *laxis chlorophyllosis*, igitur pachydermibus.

Pterygophyllum diaphanum Brid. II. p. 345, e cujus specimini-bus, patria designata carentibus, diagnosin duximus. — *Hypnum diaphanum* Sw. Prodr. Fl. Ind. Occ. p. 140. — Hedw. Sp. Musc. p. 243. t. 61, sed foliis enervibus false delineatis.

Patria. Jamaica, in depressis montium: Swartz.

Pedunculus ignotus.

27. **H. latifolia** C. Müll.; *H. subenervi* proxima, sed robustior, folia asymmetrica *late* oblongo-acuminata obliqua subplanissima, margine plano, nervis tenuissimis brevibus, cellulis *longissimis pellucidis laxioribus* angustis, apice simpliciter denticulata, acumine acutiusculo terminata, *apice plicato-torta.*

Patria. Insula Trinidad Antillarum, ubi monte Tocuche leg. Crüger.

Ab *H. subenervi* certe distat, sed sterilis tantum nobis visa. Flos masc. turgide gemmaceus, foliis late convolutaceis acuminatis subintegris enervibus pellucidis.

28. **H. affinis** C. Müll.; late et regulariter complanata, appressa, breviuscula, parce ramosa, ramis *obtusis*, *ubique aequaliter latis;* folia *late oblongo-ovata*, *rotundato-obtusa*, *brevissime acuminata*, planissima, densis-

sime imbricata, margine plano apice distincte denticulato, nervis brevibus tenuissimis, cellulis *elongatis* angustis pellucidis.

Lepidopilum affine C. Müll. Linn. XXI. p. 192.

Patria. Surinam prope Paramáribo: Kegel 1844. Junio sterilem legit in truncis arborum.

Ab *H. latifolia* caracteribus laudatis differt.

29. **H. membranacea** C. Müll.; *H. Patrisiae* simillima, saepe longissime repens, folia *planissima, e basi parum auriculate amplexicauli v. constrictâ late ovata et valde oblique acuminata, maxime asymmetrica, margine planissimo ubique vix conspicue tenuissime denticulato, nervis binis brevissimis tenuissimis v. obsoletis, cellulis maxime angustis densissimis, in membranam veluti* conflatis.

Patria. Insula Trinidad Antillarum, monte Tocuche, ubi modo *H. Patrisiae* ramos tenues et folia arborum habitat: Crüger 1847. sterilem legit.

c. *Folia integerrima.*

30. **H. convallium** C. Müll.; *angustissime* complanata, gracilis, tenuis, sordide viridis; folia caulina *symmetrica*, e basi *anguste ovato-oblonga, longe acuminata integerrima, raro parcissime obsolete denticulata,* paulisper flexuosa, *profunde concava,* angustissime longissime dense areolata, chlorophyllosa, dein pallida, nervis *brevibus tenuissimis subobsoletis*, margine erecto.

Pterygophyllum convallium Brid. II p. 354.

Patria. In convallibus Andium: Humboldt et Bonpland.

Ab *H. intermedia* haud dissimili et affinibus notis laudatis facillime distinguitur.

Incertae sedis.

31. **H. Swartzii** Schw. (Suppl. III. II. 2. t. 276.); *monoica;* repens appressa subpinnate ramosa; folia densa, bifariam patentia, lutescentia nitidula, *ex ovato longe acu-*

minata falcata, enervia, concava, obsolete denticulata, cellulis elongatis, *summis fere linearibus;* perich. longiora integerrima; theca in ped. mediocri glabro apice curvato horizontalis v. rarius nutans, parvula, oblonga aequalis badia, calyptra glabra, basi pluries plicata crenulata; perist. externi d. dense trabeculati linea media tenui exarati, int. breviores. †.

Patria. Jamaica: Swartz.

Inter *Lepidopila* pertinens?

Sectio III. **Eriopus** Brid. II. p. 339. — Cellulae densae v. laxae elongatae laeves; folia *undique inserta, sparsa remota magna, haud distiche imbricata,* nervis tenuibus, haud callosis, interdum nullis; caulis repens, ramis ascendentibus *erectis, haud complanatis.*

A *Lepidopilis* primo visu ramis erectis haud complanatis plantae refugientes.

Subsectio I. **Pterygophyllum** Brid. Plantae subcomplanatae.

a. *Folia enervia.*

32. H. lucens Sm. (Trans. of Linn. soc. IX. p. 275.); *dioica;* latissime cespitosa ascendens parce ramosa *robustissima, albide viridescens amoene lucens,* folia caulina laxissime conferta *latissime ovata oblongo-obtusata, angustate subligulata, planissima, enervia, integerrima,* cellulis *magnis laxissimis robustissimis elongate rhomboideis, basi longissimis,* parietibus tenuibus albidis, utriculo primordiali granulate chlorophylloso praeditis, apice folii paucis minoribus, cellulis magnis margine inclusa; perich. lanceolato-acuminata, multo minora, cellula apiculi solitaria magna terminata, externa minuta angustissima; theca in ped. crassiusculo longiusculo glabro inclinata horizontalis turgide ovalis brevis brunnea, ore parum constricta, operc. conico recte acuminato, calyptra parum longiore albida obtecto; perist. dentes ext. longissimi maxime trabeculati linea media tenuissima exarati, int. illos aequantes, flavidi valde carinati pertusi.

Hook. et Tayl. Musc. Brit. t. 27. — *Pterygophyllum lucens* Brid. II. p. 343. — *Leskea lucens* Dec. et Lam. Fl. Franç. II. p. 513. — Schw. Suppl. I. II. p. 164. t. 84. — *Hypnum lucens* Linn. Sp. Pl. p. 1589. — Hypnum pennatum, aquaticum lucens, longis latisque foliis. Dill. Musc. p. 270. t. 34. f. 10.

β. acuminata; folia teneriora, angustiora acuminata. An species propria?

Patria. In regione montana et subalpina, ad rivulos sylvestres umbrosos et scaturigines totius fere Europae passim. E Lusitania, Islandia, Suecia atque Norvegia borealibus et Lapponia desideramus. Var. *β.* in rupibus irroratis, ad catarractum Pigeon-river Falls dictum Carolinae superioris, alt. c. 4000 ped.: Sullivant (Musc. Allegh. No. 58.) sterilem legit. — *Vere.*

Species pulcherrima, habitu *H. asplenioidis*, nervis binis distinctae, humore odore *Violae odoratae* vel *Dematii Jolithi.*

33. **H. acutifolia** Hook. (in Schw. Suppl. II. II. 1. p. 36. t. 163.); *monoica; H. lucenti* simillima, sed folia anguste ovato-oblonga acuminata; caetera *H. lucentis.*

Patria. Nepal: Wallich.

Flos masc. turgide gemmaceus, fol. perig. minoribus ovato-acuminatis concavis, anth. et paraph. paucis. Ab *H. lucente var. β.* cellulis multo rigidioribus valde hyalinis haud chlorophyllosis distat.

b. *Folia nervosa.*

34. **H. asplenioides** Walker-Arn. (Disp. d. M. p. 56.); *H. lucenti* simillima, sed *amoene glauca;* folia latissime rotundate ovata, *acumine robusto longiusculo terminata*, ubique late et *laxe marginata*, superne *remote grosse dentata*, nervis *brevissimis inaequalibus subobsoletis*, cellulis amplis, rhomboidaliter hexagonis mollibus pachydermibus chlorophyllosis, basi laxioribus majoribus.

Schw. Suppl. III. II. 2. t. 276. — *Pterygophyllum asplenioides* Brid. II. p. 345.

Patria. Insula Bourbonis, in depressis humidis: Bory St. Vincent.

Hucusque sterilis tantum nota.

35. **H. splendidissima** Mont. (Ann. d. sc. nat. ser. II. tom. IV. p. 96. et in D'Orbigny Voy. d. l'Am. mer. Tom. VII. Crypt. p. 110.); *dioica*, *longissima*, latissime complanata, ramis remotis longiusculis ascendentibus? pallide viridibus; folia caulina latissime ovata obtusata, breviter acuminata, planissima, *margine crenulate denticulata v. integra*, cellulis ubique longis *angustissimis densissimis et homogeneo-viridibus*, *parietibus parum interruptis*, nervo uno alterove rarissime evoluto; perich. ext. late lanceolato-acuminata, intimum majus, late *cylindraceo-convolutum*, *apice subemarginato-obtusatum*, *acumine longiusculo sublato denticulato terminatum*; theca in ped. *parum exserto* apice paulisper curvato majuscule elliptica, operc. conico-acuminato recto; perist. dentes ext. angusti longissimi, illis *H. lucentis* similes, int. in membrana breviuscula longissimi angustissimi hiantes.

Schw. Suppl. IV. t. 320.

Patria. Insula Juan Fernandez ad oras Chilenses: Bertero. Chile: C. Gay, Cuming.

Statura *H. lucentis*, sed caulis plerumque longior, magis complanatus, nitidissimus et notis laudatis facile distinguenda species.

36. **H. apiculata** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 549.); *dioica*; *tenella parvula perfecte mnioidea* erecta parce dichotoma pallide viridis, nitidiuscula; folia laxe conferta, caviuscula, *rotundata apiculata*, *limbo lato flavo*, e cellulis elongatis angustissimis densis composito, superne subdenticulato, nervis brevissimis, plerumque *obsoletis*, cellulis ampliusculis pellucidis rigidis inanibus amoene reticulatis; theca in ped. scabriusculo cernua, calyptra pilosa.

Cum ic. in Fl. Antarct. II. p. 421. t. 155.

Patria. Insula Eremitae ad Cap. Horn: J. D. Hooker sterilem legit. Tasmannia: Gunn fertil. lg.

H. asplenioidi proxima et statura *Mnio Hymenophyllo* vel *Mniadelphis* haud dissimilis.

37. **H. denticulata** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 550.); erectiuscula mnioidea subramosa, obscure

viridis opaca; folia caulina laxe imbricata subquadrifaria oblongo-rotundata, immarginata, cellulis *teneris jungermannioideis aequaliter hexagonis* pellucidis, *margine superne hic illic in dentes remotos grossos v. parvos productis, in angulis parietum maculis triangularibus notatis*, nervis brevissimis obsoletis; theca pendula ovata, operculo rostrato, calyptra glabra.

Cum tab. in Fl. Antarct. I. p. 145. t. Ixii.

β. latifolia; robustior, folia *latissima, minus dentata, cellulis majoribus saepe apice folii in fila productis*, nervo lato longiore, apice furcato, theca in ped. crasso breviusculo. An species propria?

Patria. Insulae Eremitae et Falklandi; var. *β.* in insulis Aucklandi: J. D. Hooker.

Ab *H. anomala* foliis rotundatis haud spathulato-ovatis primo momento differt. Typum hujus speciei sterilem tantum vidimus.

38. **H. anomala** C. Müll.; *H. denticulatae* var. *β.* simillima, procera tomentosa, ramis tenuibus mnioideis, ex apice caulis rosulate foliosi saepe egredientibus, sordide viridibus; folia remota patula, paullo tortilia, *e basi breviter spathulatâ late ovata obtusa*, obliqua inaequalia, grosse et remote serrata, nervo altero lato ad medium producto, altero obsoleto, cellulis magnis, margine in dentes productis, in angulis parietum maculis angularibus notatis veluti ductibus intercellularibus instructis, *maxime* pachydermibus.

Racopilum anomalum Schw. Suppl. III. II. 2. t. 278.

Patria. In Americae borealis ora occidentali: Menzies.

39. **H. obscura** Mont. (Ann. d. sc. nat. 1844. 4. p. 93.); *monoica?* erecta brevis subsimplex; folia quadrifariam imbricata, lateralia patenti-erecta spathulata, dorsalia erectiuscula, omnia apice grosse serrata, nervo crasso subbifurco ante apicem evanido. †.

Patria. Chile australior.

Ex obs. auctoris *H. denticulatae* H. et W. areolatione foliorum proxima, sed forma folii distincta.

Subsectio II. **Eriopus** Brid. Plantae sparsifoliae.

40. **H. cristata** Walker-Arnott (Disp. d. M. p. 56.); *dioica;* ascendens flexuosa *crassa opaca, haud nitida, sordide viridis, subglauca,* ramis elongatis parce praedita; folia caulina dense conferta crispata, madefacta patentia planiuscula, *carnosa, latissime rotundato-ovata, brevissime* acuminata, ubique late et *incrassate* marginata, superne *inaequaliter erose vel obtuse dentata,* nervis *latis valde perspicuis* infra medium evanidis, cellulis *maxime amplis subcirculari-hexagonis, haud rhomboidalibus, rigidis, pachydermibus,* pellucidis, utriculo primordiali tenuissimo praeditis, basi elongatis; perich. *latissime convolutacea, apice dentiformi-sinuato-emarginata, acumine longissimo angusto flexuoso integro terminata,* enervia, immarginata, cellulis elongatis laxissimis mollibus, externa multo minora, haud emarginata; theca in ped. medio longissime ciliato valde arcuato minute ovalis, brunnea, operculo conico recte subulato, calyptra magna *crassa apice truncata, papillis maxime latis brevibus rotundato-obtusis* apice densissime obtecta, basi ciliis crassis longis flexuosis; perist. *H. remotifoliae.*

Chaetephora (*Eriopus*) *cristata* Brid. II. p. 339. — *Leskea cristata* Hdw. Sp. Musc. p. 211. t. 49.

Patria. Insulae Australes: Banks.

E pulcherrimis et distinctissimis, notis explicatis ab *H. remotifolia* longe recedens et statura *Mniadelphi microcarpi.*

41. **H. polytrichoides** Spreng. (Syst. Veget. IV. p. 197.); *hermaphrodita;* caulis repens, ramis ascendentibus elongatis rigidis, ramulis inaequalibus longiusculis tenuibus, laete viridis; folia laxissime conferta, remota, contorta, madefacta maxime patentia rigida stricta, *e basi asymmetricâ latissime ovata, acumine robusto longo latiusculo plicato-torto terminata, inaequaliter plana,* margine inferne obsolete denticulato, *superne grosse serrato,*

nervis latis ad medium tenuiter evanidis, cellulis majusculis rhomboidalibus angustiusculis, utriculo primordiali valde repletis; perich. minora teneriora, *e basi latiuscule convolutacea longe anguste acuminata enervia subintegra*; theca in ped. *brevi parum scabro* flexuoso erecta *cylindraceo-oblonga, ore constricta*, operculo conico subulato recto, calyptra pilis latis flexuosis squamose pilosissima, basi late multifida; perist. dentes ext. longissimi, margine valde eroso-articulati opaci fusciduli, interni in membrana brevissima carinata externos aequantes carinati haud perforati dense articulati subrugulosi pallidiores.

Daltonia polytrichoides Arn. Disp. p. 55. — *Lepidopilum polytrichoides* Brid. II. p. 269. — *Pilotrichum polytrichoides* C. Mant. Musc. p. 140. — *Neckera polytrichoides* Schw. Suppl. III. 2. t. 231. — *Orthotrichum polytrichoides* Brid. Musc. Rec. II. p. 31. — *Hypnum polytrichoides* Hdw. Sp. Musc. p. 244. t. 61. — *Polla binervis* Brid. I. p. 856! — *Hookeria Perrini* Spr. in Neu. Entdeck. III. p. 4? — *Chaetephora Perrini* Brid. II. p. 336?

Patria. Jamaica, Hispaniola: Swartz; Martinique: Sieber; Trinidad, monte Tocuche: Crüger.

42. **H. flexifolia** C. Müll.; *dioica?* repens, ramis ascendentibus breviusculis teneris ramulosis rigidis substrictis; folia caulina sublaxe conferta, *longiuscula anguste oblongo-acuminata, pluries spiraliter contorta*, supra basin denticulata, apice remotiuscule dentata, nervis *tenuibus* brevibus, cellulis *brevibus perangustis densis* ad *utriculum primordiale maxime evolutum veluti incrassatis, hic illic pellucidis;* perich. *elongate lanceolato-acuminata angusta* enervia, plus minus complicata, apice denticulata, subcontorta, intima minuta angustissima; theca in pedunculo *breviter exserto glabro cylindraceo-oblonga recta,* senectute inclinata, *minuta;* perist. dentes externi et interni angusti pallidi aequales.

Pilotrichum biductulosum P. B. Prodr. p. 82. et Brid. II. p. 266. seu *Neckera biductulosa* Schw. Suppl. I. II. p. 155, e spec. auth. forma foliis minus contortis videtur!

Patria. Insula Trinidad Antillarum minorum, Arima 9. Maj. 1847, cum fruct. vetustis; monte Tocuche 14. Mart. sterilem legit Crüger.

Ab *H. polytrichoide* notis cursive impressis longe differt. Folia plantae vetustae minus contorta, latiora et cellulis utriculo primordiali carentibus pellucida.

43. **H. Surinamensis** C. Müll.; *H. polytrichoidi* proxima, sed humilior; folia *symmetrica subrotundate ovata, acumine brevissimo plicato terminata*, latissima, supra basin simpliciter, superne grosse *dentata*, cellulis minoribus; perich. *anguste lanceolato-acuminata remote dentata caviuscula.*

Lepidopilum Surinamense C. Müll. Linn. XXI. p. 193.

Patria. In sylvis primaevis prope Mariepaston Surinami, ad truncos arborum Majo 1846. sterilem legit Kegel.

44. **H. remotifolia** C. Müll.; caulis ascendens ramosus, *mnioideo-foliosus*, flavide virens, dein fuscescens *nitida;* folia caulina laxe conferta, *firma*, late *ovato-acuminata*, acumine lato plicato brevi, ubique latiuscule *sublaxe* marginata, *supra medium spinoso-dentata*, nervis *brevissimis obsoletis*, cellulis *ampliusculis leptodermibus*, basi elongatis laxissimis, pellucidis; perich. *externa angustissime lanceolata longe tenuiter acuminata, interna multo majora cylindraceo-convoluta obtusata brevissime acuminata, integra* enervia; theca in ped. medio flexuoso, apice incrassato arcuato, papillis longe spinosis hispidissimo horizontalis parva ovalis, brunnea, operculo hemisphaerico conico recte subulato; calyptra magna, pilis superne erectis *filiformibus longiusculis*, basi longe et *filiformi*-fimbriata; perist. dentes ext. linea longitudinali latiuscula exarati, int. aequales tenues, in membrana altiuscula positi.

Eriopus remotifolius C. Müll. Bot. Zeit. 1847. p. 828. — *Distichophyllum cristatum* Dz. et Molkb. Musc. Archip. Ind. p. 104. t. 35. B. — *Hookeria (Mniadelphus) trichopus* C. Müll. in litt. — *H. cristata* Hsch. et Reinw. Nov. Act. XIV. II. Suppl. p. 718. tab. 40. — *Mnium subenerve* Schw. Suppl. I. II. p. 138. t. 79?

Patria. Java, ubi primus legit Reinwardt, monte Gédé supra terram humosam et lapides: Zippelius,

Korthals; Zollinger Coll. No. 394. z.; Sumatra, ubi mense Januarii collegit Korthals.

Cum *H. cristata* notis laudatis nunquam commutari potest.

Sectio IV. **Hypnella.** Cellulae densae elongatae laeves v. papillosae; folia *undique inserta*, *dense imbricata*, nervis callosis v. tenuibus; caulis compressus v. teretiusculus, *haud plano-complanatus.*

Ab *Eriopodibus* caule magis tereti hypnoideo, foliis plerumque angustis minutis dense imbricato plantae distantes.

Subsectio I. **Omaliadelphus.** Caulis robustus plus minus compressus, foliis dense appressis rectis.

α. Folia dentata v. serrata.

45. **H. Crügeriana** Sonder (in litt. ad Crüger); *dioica;* late cespitosa, vage ramosa, inaequaliter pinnata, subcompressa, robusta pallide viridis; folia caulina dense conferta subcrispula, *late ovato-lanceolata breviuscula, obtuse acuminata*, subcymbiformi-concava, *margine superne dentibus simplicibus, duplicatis v. triplicatis valde serrata*, nervis *dorso valde serratis* ante apicem *forma spinae acutae* abruptis, cellulis angustis longiusculis densiusculis pellucidis laevibus, *basi majoribus laxioribus;* perich. basi latiora, externa late ligulato-ovata subintegra brevia, interna *longe acuminata*, caeterum caulinis similia, sed omnia nervis obsoletis; theca in ped. *elongato* laevi apice arcuato horizontalis turgide oblonga, pallide fusca, operc. conico subulato, basi rufo, recto, calyptra multifida glabra; perist. dentes ext. in subulam longissimam tenuissimam maxime scabram producti, latiuscule exarati, interni breviores latiusculi.

β. dimorpha; folia ejusdem rami perfecte ligulata obtusata integra v. denticulata v. acuminata duplicate serrata, omnia superne incrassate lineari-areolata fuscidula.

Patria. Insula Trinidad Antillarum, monte Tamanaco, 1847. 10. Aug. Var. *β.* loco „los Cacaos" 1845. Febr. fructibus vetustis: Crüger.

Ab *H. gigantea* simili caracteribus explicatis longe refugit. Statura *H. undatae.*

46. **H. undata** Hmp. (Linn. XX. p. 85.); late cespitosa procumbens procera robusta depressa, ramis elongatis parce ramulosis latiusculis obtusiusculis pallide viridibus; folia caulina dense conferta *undulato-crispata, e basi caviuscula late ovatâ longe latiuscule et flexuose acuminata, superne maxime transverse undulata, immarginata, superne tenuiter remotiuscule dentata,* cellulis *elongatis pellucidis* laevissimis, basi laxioribus, nervis tenuibus ultra medium productis, evanidis vix abruptis; perich. reflexa, longissime acuminata, basi *latissima,* nervis obsoletis *valde divergentibus remotis;* theca in ped. longissimo laevi cylindraceo-oblonga subnutans majuscula, operc. cupulato longe subulato recto, calyptra apice scaberula; perist. magnum latum, dentes ext. linea longitudinali lata notati, intense rufi, interni flavidi valde carinati vix perforati.

Pterygophyllum undatum Brid. II. p. 353. — *Hypnum undatum* P. B. Prodr. p. 72. — *Leskea undata* Hdw. Sp. Musc. p. 214. t. 52.

Patria. Jamaica: Swartz. Venezuela, in montibus nivosis prov. Meridae et Caracas: Moritz.

Foliis ruguloso-undulatis distinctissima species, statura spectabili.

47. **H. gigantea** Hsch. (Fl. Bras. p. 67.); *dioica?* repens irregulariter pinnata crassiuscula firma vix compressa, densissime foliosa pallide viridis; folia basi ramulorum appressa, superne assurgentia, *longiuscule oblongo-ligulata obtusiuscula v. obtusiuscule acuminata, superne irregulariter plicata undulata,* margine erecto *ubique denticulata, pallide membranacea, ubique angustissime densissime* lineari-areolata, *laevia,* nervis basis remotis, longis, ante apicem forma spinae indistinctae abruptis, dorso apice scabris; perich. ovato-acuminata, obsoletinervia, subserrulata, e cellulis subserpentibus areolata; theca in ped. semunciali apice parum curvato crasso laevi nutans

oblongo-subclavata; perist. externi dentes linea media angusta diaphana notati, interni solidi subulato-capillares carinati.

Patria. Brasilia, in sylvis prov. Paraënsis, et ad ripas fl. Amazonum: Martius.

Sterilem solam vidimus.

48. **H. pilifera** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 160.); vage ramosa, breviter et subflexuose ramulosa, pallide viridis, vix compressa, crassior; folia sicca et madefacta dense conferta, *longiuscule oblonga*, acumine *basi latiusculo*, superne tenuissimo, flexuoso serrulato *longissimo* terminata subpilifera, *flaccida planiuscula*, margine superne tenuissime denticulato *erecto*, tenerrime membranacea, cellulis angustissimis ob papillas punctulato-*scabris*, *basi laxioribus pellucidis longis*, nervis ante apicem folii abruptis, dorso *apicis dentatis*, pallidis, interdum fuscidulis; perich. longius acuminata; theca in ped. elongato laevi subovata *cernua*, calyptra laevi.

Patria. Brasilia, Serra dos Orgaôs: Gardner 1837. No. 89.

Caracteribus explicatis ab *H. filiformi* longe recedit et *H. pallescenti* statura magis affinis.

β. Folia integerrima.

49. **H. pendula** Hook. (Musc. Exot. t. 53.); *dioica?* decumbens valde fasciculate irregulariter ramosa robusta latiuscule complanata virescens, dein rufescens, depressa; veluti distincte bifaria; folia caulina conferta, superiora appressa, *latiuscule oblongo-acuminata obtusiuscule* concava, *integerrima*, rarius apice minute erosa, *valde pallida*, *nervis dimidio folio paullum longioribus* albidis, dein flavescentibus, tenuissimis, cellulis *minutis densis oblongis*, *chlorophyllo punctatis;* fol. perich. *ex ovata basi angustissime et longissime acuminata*, *cellulis linearibus*, *nervis nullis;* theca in ped. elongato crasso laevi pendula, magna turgide oblonga fusca, operc. conico subulato dimidio breviori, calyptra multotis fissa, paraphysibus te-

uissimis paucis adspersa; peristomii dentes ext. lati, li-ea latiuscula perpendiculari exarati, int. latiusculi vix erforati externos aequantes.

Schwägr. Suppl. IV. t. 320. — *Chaetephora penduta* Brid. II. . 338.

Patria. In jugis Andium, regione temperata, trunci-ola: Humboldt et Bonpland.

Statura *H. Crügerianae*, sed caracteribus explicatis ter congeneres facillime cognoscenda.

50. **H. pallescens** Hook. (Musc. Exot. t. 38.); vage mosa compressa, ramis acutis *brevibus angustiusculis;* ia undique imbricata albida *ovato-oblonga obtusa* inte-rrima concava, *dorso apicem versus minute papillosa,* embranacea vix succulenta, minute reticulata, nervis l medium productis; perich. enervia; theca in ped. longo xuoso laevi nutans *exigua obovata, medium versus con-acta*, calyptra laevi profunde pluries fissa; perist. den-es ext. angusti, interni breviores angusti. †.

Pterygophyllum pallescens Brid. II. p. 351.

Patria. Ad ripam fluminis Orinoco prope Esmeral-am, locis opacis: Humboldt et Bonpland.

E foliis *H. pendulae* similis, sed habitu et notis cur-ve impressis longe diversa.

Subsectio II. **Euhypnella.** Caulis tenellus anguste compla-tus vel teres, foliis dense appressis rectis.

a. *Calyptra laciniata.*

51. **H. flavescens** Hook. et Grev. (Brewst. Edinb. ourn. of sc. II. p. 296. t. 5. f. 1.); *monoica;* procumbens *mpliciter pinnata, ramis brevibus*, subcompressa, sor-ide lutescens; folia caulina undique laxe imbricata, ova-o-acuminata acuta, concava ideoque supra basin veluti ontracta, membranacea, pallide viridia, mox lutescentia, *enticulata, enervia,* cellulis linearibus angustissimis, den-issimis, seriatim *punctulatis;* perich. ex ovato angustiore asi longe acuminata; theca in ped. elongato rigido incli-ata horizontalis, *e collo longo scaberulo anguste cylin-*

draceo-oblonga, calyptra basi multifida; perist. d. ext. valde trabeculati, linea media angusta exarati, interni aequales profunde fissi, in membrana brevissima positi.

Schwägr. Suppl. III. II. 2. t. 277.

Patria. Insula St. Vincent.

Folia perig. late ovata acuminata. *Hypno plano* simillima, sed calyptra (revera mitraeformi?) generice differre videtur.

52. **H. filiformis** Hook. (in Spreng. Syst. Veg. IV. p. 197.); *monoica?* procumbens *gracillima*, breviter et flexuose ramulosa *fuscata*, vix compressa; folia sicca et madefacta dense conferta, *anguste cochleariformi-elliptica, in acumen longissimum flexuosum tenue denticulatum producta*, tenuiter et pallide membranacea, angustissime prosenchymatice et tenuissime punctate areolata, margine apice paulisper involutaceo, nervis tenuibus pallidis indistincte spinaeformi-abruptis; perich. *superiora planiuscula dentata, longissime et maxime flexuosa, haud distinctius irregulariter denticulata;* theca in ped. *longissimo superne scabro* purpureo gracili *cylindraceo-oblonga minuta verrucosa*, operculo conico oblique rostellato; perist. parvi dentes ext. angusti, int. pallidi breves laeves.

Callicosta filiformis C. Müll. Linn. XXI. p. 189. — *Hook. filiformis* Spreng. Hb.

Patria. Guadeloupe et insula St. Vincent: Hb. Hook. et Taylor.

53. **H. Guadalupensis** C. Müll.; *monoica; H. filiformi* simillima, sed folia *angustissime oblonga, longissime sensim latius acuminata, haud cochleariformi-concava, sed paullo concava, apice nodosiuscule subduplicate serrulata*, nervis *tenuissimis, saepe subobsoletis*, spinae forma distinctae longe ante acumen abruptis, dorso parce denticulatis, cellulis *laevissimis, haud punctulatis*, pallidis, margine *erecto;* theca in ped. *breviusculo laevi* minute oblonga conico-operculata.

H. repens Hook. et Grev. in Brewster Edinb. Journ. of sc. II. p. 231. t. 5. — Schwägr. Suppl. III. II. 1. t. 274. — *Hypnum Guadalupense* Brid. II. p. 395, quo explicantes usi sumus.

Patria. Guadeloupe: Hb. Bridel. Insula St. Vincent: Hb. Hook. et Tayl.

E serratura duplicata *H. falcatae* haud dissimilis.

54. **H. leptorrhyncha** Hook. et Grev. (in Brewster Edinb. Journ. of sc. II. p. 228. t. 5.); *dioica; H. filiformi* similis, sed viridior, folia *lato-lanceolata acuminata, stricta*, apice subtiliter erosa, concava, *margine basin versus subinflexo, scabra*, tenuiter membranacea albida, angustissime densissime incrassate lineari-areolata, nervis *crassis* ante acumen abruptis; perich. majora longiora; theca in ped. *semunciali* scaberulo erectiuscula oblonga acrostoma *laevis* badia, operc. longitudine aequali subulato, rectiusculo, calyptra laevi. †.

Schwägr. Suppl. III. II. 1. t. 274.

Patria. Insula St. Vincentii.

b. *Calyptra fimbriata.*

Holoblepharum Dz. et M.

55. **H. elongata** Dz. et Molkb. (Ann. d. sc. nat. 1844. II. p. 305.); *dioica;* caulis longissime repens, ramis erectis *subteretibus turgidis obtusis brevibus simplicibus*, dense foliosis, nitentibus, flavo-viridibus; folia caulina elliptice oblonga, valde concava plicata, acumine lato pluries undulato-constricto, margine hic illic reflexo superne denticulato, nervis tenuissimis brevibus, cellulis angustissimis densissimis laevissimis; perich. oblongo-lanceolata longiuscule acuminata, superne undulato-cripata, plicata; theca in ped. breviusculo superne scabro suberecta, oblongo-cylindracea, operc. conico recte subulato, calyptra et perist. *H. leptopomatis.*

Chaetomitrium elongatum Dz. et M. Musc. Archip. Ind. p. 119. t. 38, folii reticulatione multo laxiore delineata.

Patria. Borneo, in arboribus: Zippelius.

Caracteribus paucis cursive impressis species jam distinctissima, solitaria.

56. **H. Philippinensis** Mont. (Lond. Journ. of bot. p. 10.); *dioica; H. elongatae* simillima, prostrata, ramis

brevibus subsimplicibus *compressis*, sordide viridibus; folia caulina *anguste oblonga*, valde concava, acumine brevi latiusculo acutato *minus constricto* terminata, margine *basi usque ad apicem tenuiter reflexo, ubique denticulato* nervis brevissimis tenuibus, cellulis *papillosis;* folia perichaetialia (perfecte ciliata), pedunculus et calyptra *leptopomatis;* theca *cylindrica elongata, basi attenuata* lineam longitudine superans, inclinata, operculo et peristomio *H. orthorrhynchae.*

Patria. Ad cortices arborum insularum Philippinensium: Cuming Coll. No. 2208; Java: Zollinger Coll. No. 115!

H. elongatam cum *H. orthorrhyncha* atque *leptopomate* arctius conjungens species.

57. H. orthorrhyncha Dz. et Molkb. (Ann. d. sc. nat. 1844. II. p. 305.); *dioica;* repens elongata subbipinnata intricata filiformis ramosissima prostrata, sordide flavescens, vix compressa; folia caulina dense conferta patentia, minuta, *anguste ovato-oblonga, apice constricto undulato-crispa, acuminata,* profunde concava, parum plicata, *supra basin serrulata, dorso distincte papillosa* nervis *tenuissimis brevibus,* cellulis angustissimis densissimis, in membranam pallidam veluti conflatis; perich. angustius acuminata, subciliate serrulata; theca in ped. brevisculo apice inclinato, supra basin *setoso-hispido* incrassato scabro minute obovata, aperta urceolata, immata, operc. conico subulato obliquo, calyptra angusta pallida, *basi flexuose fimbriata, supra basin ciliate hispida;* perist. dentes ext. late lanceolati subulati, linea media tenui exarati, int. aequales subpunctulati, vix pertusi.

Hotoblepharum orthorrhynchum Dz. et Molkb. Musc. Archip. Ind. p. 114. t. 37, quo loco folii reticulatio multo laxior delineata est.

Patria. Java, in ramis *Anonae subcordatae* ad pedem montis Palusarie, in prov. Bantam: Blume, Zippelius. Sumatra: Korthals.

Ab *H. filiformi* proxima caracteribus laudatis longe refugit.

58. **H. leptopoma** C. Müll.; *dioica; H. orthorrhynchae* simillima, bis terve ramosissima; folia *horizontaliter* patentia, minutissima, *e basi subcordatâ ovata acuta*, concava, sicca plicata, margine erecto superne serrulato; perich. in acumen subciliate serrulatum flexuosum producta, angustiora, valde plicata; pedunculus et calyptra *H. orthorrhynchae*, theca *oblongo-cylindrica*, dein urceolata, operculo conico longe et oblique rostrato; perist. dentes ext. linea media latiore exarati, interni laeves, *ciliorum rudimentis interjectis*. †.

Hololepharum leptopoma Dz. et Molkb. Musc. Archip. Ind. p. 113. t. 36. — *Hypnum leptopoma* Schw. Suppl. IV. t. 323.

Patria. Java, in monte Patoeha: Korthals; Sumatra, in arborum truncis: Korthals.

Folia auctores enervia dicunt, an recte, dubii sumus; illa *H. orthorrhynchae* Dz. et M. false quoque enervia descripserunt.

Subsectio III. **Cupressinadelphus.** Caulis tenellus compressus, foliis dense appressis falcato-homomallis.

59. **H. cupressiformis** C. Müll.; latissime cespitosa procumbens valde ramosa, sordide viridis, gracillima compressa; folia caulina cupressiformi-homomalla, dense conferta, *oblongo-lanceolata* falcata, acumine *subtenui* flexuoso terminata, *superne denticulata, striatula*, tenuissime membranacea pallida, angustissime densissime lineari-areolata, *punctulato-scabra*, nervis basi remotis sublaevibus longis, forma spinae tenuissimae indistinctae abruptis; perich. lanceolata, longissime flexuose acuminata, irregulariter tenuiter valde dentata obsoletinervia; theca in ped. *elongato scabro cylindraceo-oblonga*, horizontalis, operculo conico longe subulato recto, calyptra superne scaberula; perist. dentes ext. linea longitudinali angusta exarati, int. aequales solidi angusti constricto articulati.

Patria. Insula Trinidad Antillarum, ubi monte Tocuche copiose legit Crüger 1847. mens. Decbr., Jan. et Mart.

Ab *H. falcata* notis cursive impressis facile distinguitur; statura *Hypni cupressiformis.*

60. **H. falcata** Hook. (Musc. Exot. t. 54.); *monoica; H. cupressiformi* simillima, sed flavior, folia *elongate lanceolato-acuminata falcata, v. acumine subtorto sensim dilatato, duplicato-serrulato, inferne simpliciter denticulata, laevia,* nervis *ubique dorso serrulatis;* perich. longissime acuminata, caulinis similia; theca in ped. *laevi* cylindraceo-oblonga horizontalis, dein nutans ore constricta, operculo conico subulato, calyptra scabriuscula; perist. dentes interni latiores haud constricte articulati, ciliolis binis rudimentariis interpositis.

Schwägr. Suppl. IV. t. 319. — *Pterygophyllum falcatum* Brid. II. p. 353.

Patria. In convallibus Andium Novae Granadae, inter Almaguer et Pasto, altitud. 1200—1300 hexapodum: Humboldt et Bonpland. Venezuela, Faji: Morita. Guadeloupe: Bertero, pastor Forsström.

Sectio V. **Callicostella.** Cellulae foliorum *parvae magis aequales v. incrassatae rotundatae* laeves v. papillosae; folia *ligulate* oblonga immarginata, nervis callosis; caulis *decumbens compressus.*

Areolatione et forma foliorum magis ad *Eupilotricha Pilotrichi,* quam ad sectiones praecedentes plantae accedentes.

a. *Folia ubique incrassate rotundato-areolata.*

61. **H. callicostata** C. Müll.; *procera robusta,* ramis elongatis apice curvatis irregulariter pinnate et inaequaliter ramulosis sordide viridibus, vix compressis crassiusculis; folia laxe conferta, siccitate crispula, *e basi dilatatâ elongate perfecte oblongo-ligulata obtusa,* interdum apice paulisper emarginata, *planiuscula,* margine erecto integerrimo, nervis *crassis, ante summum apicem forma spinae obtusae saepe ultra apicem folii productae abruptis glabris,* cellulis *ubique minutissimis rotundatis obscuris.*

Patria. Insula Antillarum Trinidad, ubi monte Tocuche sterilem legit Crüger 1847. Januar. 20.

Statura *H. undatae* et pulcherrima species, structura *Eupilotrichi* folii.

62. **H. fissidentoides** Hook. et Wils. (in Hook. Ic. Pl. Rar. t. 739.); depressa pinnatim ramosa, *habitu fissidentoideo-complanato, rigidiuscula*, ramulis brevibus pinnaeformibus; folia caulina conferta subdisticha, *rigidula nitentia laete viridia, sicca stricta*, e basi concavâ *lanceolato-ligulata angusta acuta v. brevissime acuminata, apice subserrata, superne plana*, nervis ad apicem fere productis, cellulis oblongis minimis; perich. caulinis similia, e basi ovata ligulata acuta serrata binervia; theca in ped. ascendente apice arcuato semiunciali laevi ovata parvula horizontalis, operc. subaequante conico subulato, calyptra glabra basi multifida. †.

Patria. Jamaica, in sylvis interioribus *tov* Manchester: W. Purdie, Dec. 1843.

Ab *H. nitente* Hsch. ex animadv. auctorum differt: foliis apice haud recurvis, minus serratis et habitu distincte fissidentoideo.

b. *Folia basi pellucidius, superne obscure areolata.*

a. Pedunculus glaber.

63. **H. microcarpa** Hsch. (Fl. Bras. I. p. 62.); *monoica;* longe repens anguste compressa breviter ramosa, pallide viridis, inferne rufescens; folia caulina e basi late ovata caviusculâ ligulato-oblonga obtusa, *breviter acuminata*, superne tenuissime denticulata, planiuscula, nervis ante apicem forma spinae obtusiusculae abruptis, valde divergentibus, crassiusculis flavidulis *glabris*, cellulis ubique minutis, *basi pellucidioribus*, superne obscuris viridibus subglabris; perich. magis acuminata; theca in ped. longiusculo *laevi* horizontalis oblonga, ore constricta, minuta, operculo conico subulato recto, calyptra longe multifida glabriuscula; perist. dentes ext. in subulam tenuissimam scaberrimam producti, latiuscule exarati, int. aequales imperforati.

H. obliqua Hmp. in litt. — *H. Hornschuchiana* Hmp. Ic. Musc. in contextu *H. Pöppigianae.* — *Pilotrichum obtusifolium* Brid. II. p. 860!

Patria. Brasilia, prov. Minarum Generalium et ad Fanado in Minis novis: Martius. Prope Rio Janeiro: Beske. Prov. St. Catharinae: Blumenau.

Pedunculum laevem tantum vidimus, haud superne scabriusculum, ut dicit auctor. Ab *H. Weigeltiana* notis cursive impressis differt.

64. **H. depressa** Hook. et Tayl. (Musc. Brit. p. 90.); *monoica; H. microcarpae* similis, sed differt: foliis jam e medio valde *eroso-denticulatis, magis papillosis,* nervis *tenuioribus, dorso et apice abrupto valde glomerate dentatis;* perich. caulinis multo angustiora, caeterum similia; theca in pedunculo breviori, calyptra *distincte scabra.*

H. affinis W. Arn. Trans. of Werner. soc. V. et Disp. d. Mousa p. 56. — *Pterygophyllum depressum* Brid. II. p. 352. — *Leskea depressa* Hdw. Sp. Musc. p. 215. t. 53. — *Hypnum depressum* Sw. Prodr. Fl. Ind. Occ. p. 141. — *H. Guadalupense* Spreng. in litt. ad. *Balbis*, fide Brid. II. p. 351.

Patria. Jamaica, in montibus, ad cortices arborum: Swartz. Guadeloupe et Portorico: Bertero. Hispaniola: Poiteau, Bertero.

65. **H. Merkelii** Hsch. (Fl. Bras. I. p. 62.); *hermaphrodita;* longe repens depressa laxifolia, irregulariter pinnata, flaccida, amoene virescens *planissima;* folia caulina latiuscule oblongo-ligulata, plerumque oblique obtusata, brevissime acuminata, superne eroso-denticulata, basi subasymmetrica, nervis valde divergentibus, dorso parce scabris, spinae forma distinctae ante apicem abruptis, cellulis ubique parvis pellucidis, superne plerumque incrassatis, *haud opacis, laevibus;* folia paginae inferioris caulis plerumque e basi lata lanceolato-acuminata multo tenerius et pellucidius areolata; perich. his similia, sed multo minora, intima obsoletinervia; theca in ped. breviusculo ascendente *laevi* horizontalis minute ova-

lis, ore constricta, operculo conico subulato, calyptra latiuscule multifida, scabriuscula.

Patria. Brasilia, in uliginosis ad terram prope Sebastianopolin, Julio et Aug. c. fr. maturis: Merkel, Gardner No. 84.

Ab omnibus affinibus (*H. scabriseta, scabriuscula, pallida, longipedunculata, depressa* et *microcarpa*) foliis laevibus primo adspectu distinguitur. Ab *H. Martiana* inflorescentia et reticulatione multo teneriore primo intuitu distat.

66. **H. Martiana** Hsch. (Fl. Bras. I. p. 63. t. 3.); *monoica;* anguste complanata pusilla viridis; folia caulina laxe conferta, *asymmetrica, late ovata subligulata rotundato-obtusata v. breviter acuminata,* parum et diverse concava, immarginata, nervis *crassis ante apicem obtuse abruptis,* cellulis *parvis pachydermibus* pellucidis, parietibus valde viridibus, *margine denticulos efformantibus,* mollibus; perich. angustiora ligulata v. acuminata; theca in ped. laevi breviusculo ovata subapophysata horizontalis, deoperculata nutans, ore constricta, operc. recte subulato, calyptra angusta basi fissa apice scabriuscula.

Patria. In inundatis ad flumen S. Francisci prope Joazeiro prov. Bahiensis: Martius Aprili.

Statura *H. albicantis* et affinium. Flos masc. 5—6-phyllus, fol. perig. internis angustioribus ligulatis v. acuminatis. Ico folii caulini tabulae tertiae operis l. c. figuram folii male demonstrat.

67. **H. papillata** Mont. (Ann. d. sc. nat. 1845. 4. p. 93.); *hermaphrodita;* late cespitosa *sordide flavide viridis fuscescens,* vage pinnatim ramosa; folia caulina *anguste oblongo-ligulata, distincte acuminata,* apice marginis *subduplicate tenuiter dentata,* veluti erosa, *dorso valde papillosa, scaberrima, fuscescentia,* nervis ante apicem spinae forma abruptis, dorso scaberulis fuscescentibus crassiusculis, cellulis minutis, supra basin folii pellucidiorem obscuris; folia paginae caulis appressi inferioris ubique fere pellucida, longius acuminata; perich. e basi

latiore teneriore lanceolato-acuminata; theca in ped. longiusculo *glabro* parvula obovalis, collo instructa, horizontalis, vix cernua *brunnescens*, operculo conico subulato recto pallidiori, calyptra profundè multifida, *apice scaberrima, brunnea firma;* perist. angustum, interni dentes subrugulosi, paullo perforati.

Patria. Java, prov. Buitenzorg: Hb. Miquel.

Colore fuscescente v. brunnescente partium omnium primo visu discernibilis et statura *H. depressae v. pallidae.*

β. Pedunculus scaber.

68. **H. scabriseta** Hook. (Musc. Exot. t. 52.); *dioica?* repens, ramis procumbentibus vage pinnatim ramosa, pallide viridis, rigida, compressa, angusta, parvula; folia caulina laxe conferta, sicca subcrispula, e basi *latiusculâ oblongo-ligulata obtusa brevissime acuminata,* integra, *subplana,* nervis ante apicem forma spinae angustae abruptis, dorso sublamellosis, cellulis *ubique minutissimis* rotundatis obscure viridibus *subglabris;* perich. acuminate ligulate longiora angustiora; theca in ped. longiusculo flexuoso *ciliato-hispido* apice in collum incrassato horizontalis turgide ovalis, ore constricta, operc. conico subulato recto, calyptra longe anguste multifida apice scabra.

Lepidopilum binerve Brid. II. p. 269.

Patria. In crepidinibus Andium inferiorum prope Caripe in regione temperata, altitud. 480 hexapod., ubi in scopulosis irriguis leg. Humboldt et Bonpland.

Ab *Hook. pallida* foliis basi dilatatis, medio paulisper excavatis, minutissime areolatis, integris et pedunculo ciliato-hispido facile distinguitur.

69. **H. pallida** Hsch. (Fl. Bras. I. p. 64.); *hermaphrodita; H. scabrisetae* simillima, sed differt: foliis superne *eroso-denticulatis robustius et saepe praesertim basi sublaxe reticulatis, nervis dorso scaberrimis,* pedunculo *scaberulo,* haud ciliato-hispido et theca *minuta,* perist. minuto angusto, operculo *breviori.*

H. scabriseta Schwägr. Suppl. III. II. 1. t. 275! — *H. Weigeltiana* C. Müll. in Linn. XXI. p. 190.

Patria. Surinam: Weigelt et Kegel in truncis *Tamarindi Indicae* leg. Junio 1844. Trinidad, ubi copiose mens. Octobris leg. Crüger. Brasilia, ad flum. Amazonum, in Minis generalibus ad Villam Riccam: Martius, Tijuca prov. Rio Janeiro: Beyrich, Olfers, m. Octobris. Cortices arborum habitans.

Flos minutus, fol. perig. late lanceolatis, basi tenerrimis, vix obsoletinervibus; anth. paucis, paraphysibus copiosis hyalinis et archegoniis solitariis v. paucis.

70. H. scabriuscula C. Müll. (Linn. XXI. p. 191.); *hermaphrodita; H. pallidae* simillima, sed folia brevia, oblongo-ligulata obtusa, vix acuminata, *subcircularia v. elliptica, margine haud erosa, sed papillose scabra*, basi paullo cava, areolis minutis ubique, basi infima exclusa, opacis v. paginae caulis appressi inferioris pellucidis, nervis ante apicem forma spinae brevis abruptis, dorso paulisper scabris; perich. anguste ligulata; theca in ped. breviusculo scabro minute oblonga horizontalis v. nutans, calyptra apice scabra; perist. angustum, interni dentes ciliis solitariis rudimentariis.

Patria. Chile: Pöppig.

71. H. longipedunculata C. Müll.; *hermaphrodita; H. pallidae* simillima, sed differt: foliis *dimorphis*, caulis paginae superioris ligulato-oblongis obtusiusculis, breviter acuminatis, eroso-denticulatis, inaequaliter concavis, nervis crassiusculis flavidulis, ante apicem evanidis, superne scaberulis, forma spinae obtusiusculae abruptis, cellulis opacis subpapillosis, basi paullo pellucidioribus, *paginae inferioris lanceolato-acuminatis, tenerioribus pellucidioribus;* perich. e basi latiore magis acuminatis; pedunculo *longissimo* superne scaberulo, operculo longiuscule subulato recto, calyptra scabra.

Patria. Insula Trinidad Antillarum: Crüger 1847.

Hookeriae non satis notae, incertae sedis.

1. **H. rigida** Walk. Arn. (Disp. d. M. p. 56.); caulis erectus sesquiuncialis, basi incrassatus, apice in ramos aliquot unciales distichos divisus; folia amplexicaulia, in tres fere ordines sed irregulariter disposita, caulis lateribus et dorso adnata, directione disticha, obovata cum mucrone, angusto margine cincta, serrata, pallida, sicca e lutescente viridia: nervi duo, basi approximati, inde divergentes, dimidio folio breviores, concolores, areolae reticuli ubique aequales subrotundae. †.

Pterygophyllum rigidum Brid. II. p. 348. — *Hypnum rigidum* Schw. Suppl. I. II. p. 189.

Patria. America meridionalis: Thuillier cum Schwägrichenio communicavit.

Ex obs. *Schwägricheni*, cui soli nota species, cum *H. albicante* e foliorum forma simili commutari potest, sed differt *H. albicans* caule debili decumbente, foliorum nervis remotis parallelis, reticulo ad *Splachnorum* morem laxo.

2. **H. Taylori** C. Müll.; laxe cespitosa, decumbens subpinnata, 3—4 unc. longa, ramis pallide viridibus v. luteo-brunneis, longioribus incurvis; folia imbricata subpatentia, deorsum heteromalla (homomalla?), *late oblonga, obtusa, ubique valde concava et apice subito lineari-apiculata*, denticulata, dorso papillosa, nervis evanidis opacis brunnescentibus; theca in ped. summo apice scabriusculo subbiunciali oblonga obconice apophysata, operculo conico rostrato; perist. internum ciliis interpositis. †.

H. papillata Tayl. Lond. Journ. of bot. 1848. p. 283. Nomen ob synonymum Montagneanum mutandum.

Patria. Monte Pichincha Andium Quitensium: W. Jameson 1847, Augusto.

3. **H. mollis** Wils. (l. c.); *H. Taylori* simillima, sed differt: ramis latioribus, foliis magis erectis, nervis pellucidioribus, pedunculo breviore, theca ovata, basi latiore. †.

Patria. Brasilia.

Species delenda.

1. **Chaetephora orthotrichoides** Brid. II. p. 339. vel *Leskea orthotrichoides* Raddi Crittog. Bras. p. 6. *Macromitrium filiforme* videtur et ad *Lasiam orthotrichoidem* Synops. nostr. I. p. 720 verisimiliter pertineat.

Gen. VII. **Hypnum** Dill. emend.

Musc. p. 261; a *Linné* et *Hedwig* sancitum. — *Leskea* auct. — *Isothecium* Brid. — *Stereodon* Brid. — *Hookeria*, *Neckera*, *Pterogonium*, *Anomodon* auct. ex parte.

Nomen e *Dillenio* apud *Aëtium* (Serm. 12. C. 44, Serm. 13. C. 117 et C. 118.) primum occurrens, synonyma *Sphagni*, *Splachni* et *Bryi*, i. e. muscum arboreum seu *Usneam* designans, ab ὕπνος *somnus* propter vires somniferas ductum, a *Dillenio* muscis pleurocarpicis permultis variis impositum, a *Linnaeo* et *Hedwigio* sancitum atque emendatum.

Calyptra *dimidiata*. Peristomium duplex. Dentes externi sedecim lanceolati, trabeculati, linea longitudinali plus minus lata, rarius fissura exarati, intus trabeculis plus minus cristato-prominentibus. Dentes interni in membrana exserta sulcata reticulata lanceolati, articulati sulcati, solidi vel medio perforati vel omnino hiantes et secedentes, ciliis 1—4 interpositis, saepius rudimentariis.

I. *Folia bifariam imbricata.*

Sectio I. **Dendroglossophyllum.** Caulis erectus, inferne indivisus, *superne dendroideo-pinnatus*, ramis compressis; folia plus minus ligulato-oblonga, rotundate v. elliptice areolata.

a. *Folia enervia.*

1. **H. Porotrichum** C. Müll.; dioicum; caulis primarius repens, secundarius erectus, basi brevi nuda foliolis remotis obtecta, superne frondiformi-dendroideus

2—3 pinnatus, ramis *dense approximatis* complanatis *teneris* sordide viridibus attenuatis; folia caulina distichacea *oblonga angusta breviter acuminata, apice serrulata, margine erecto, nervo tenui ad medium evanido*, cellulis ellipticis submollibus viridibus, alaribus vix ullis; perich. vaginantia elongate acuminata reflexa *subdenticulata enervia*, cellulis *elongatis laxiusculis viridibus, parietibus interruptis;* theca in ped. elongato flexuoso purpureo laevi suberecta ovata, operc. longe subulato recto; perist. d. ext. *longissimi* late lanceolato-acuminati dense trabeculati, int. aequilongi lati carinati hiantes flavidi, ciliis 1—2 interpositis.

Climacium Porotrichum longirostrum Brid. II. p. 275. — *Neckera longirostris* Hook. Musc. Exot. t. 1. — *Hypnum expansum* Tayl. Lond. Journ. of bot. 1846. p. 64. fide Wilsoni huc pertinet.

Patria. In jugis Andium: Humboldt et Bonpland; in monte Pichincha pr. Quito: W. Jameson 1827.

b. *Folia uninervia.*

α. Theca erecta.

2. H. aciculatum C. Müll.; caulis 6—8-uncialis procumbens elongatus pinnatus, pinnis remotiusculis patentibus, apice flaccidis subuncialibus; folia caulina laxa erecto-patentia lanceolata longius acuminata serrulata, mediotenus uninervia, vaginantia, ramea perangusta; perichaetia ad caulem principem aggregata, pedunculis brevibus scabris duplo longioribus, theca suberecta ovata, rostrate operculata; perist. int. d. perforati, ciliis singulis interpositis. †.

Leskea aciculata Tayl. Lond. Journ. of bot. 1847. p. 339.

Patria. Prope Quito Andium: W. Jameson, Nov. 1846.

Hypopterygio affinis appellatur, sed folia stipulaeformia auctor non descripsit.

3. H. macrotheca C. Müll.; *dioicum;* caulis primarius repens tomentosus, secundarius erectus jam e basi fere foliosus, ramis *simplicibus vel subdivisis*, mox dendroideis, mox elongatis subpinnatim dispositis depressis;

folia ramulina laxe imbricata sparsa, dorsalia appressa, lateralia distantia, neque tamen regulari modo imbricata vel quadrifariam disposita, e basi ovatâ oblonga acuta brevia, concava, sordide viridia, *argute dentata*, nervo ante apicem abrupto valido viridi, cellulis ubique *grosse* oblongo-rotundatis; perich. multo angustiora et longiuscule ovato-acuminata, nervosa; theca in ped. mediocri laevi rubro *recta cylindrica longiuscula aequalis;* perist. robustum; columella exserta. †.

Neckera macrocarpa Brid. II. p. 233. — Schw. Suppl. III. II. 1. t. 267.

Patria. Nepal.

Ab *H. fasciculato* proximo notis datis differt.

4. **H. flabellatum** Dicks. (in Hb. Linn. jun.); caulis secundarius grandis erectus inferne simplex, foliis arcte vestitus, superne sparse ramosus subpinnatus, ramis complanatis; folia duplicato-disticha patentia elliptica obliqua complanata, sub apicem serrulata, nervo dimidiato, luteo-virescentia pallida nitida; perich. lineari-lanceolata; theca *in ped.* perbrevi rubro superne flavido erecta ovata ferruginea. †.

Leskea Omalia flabellata Brid. II. p. 325. — *Hookeria flabellata* Sm. in Trans. of Linn. Soc. IX. p. 280. t. 23. f. 2.

Patria. India Orientalis.

5. **H. superbum** C. Müll.; caulis dendroideus erectus, basi simplex, sursum fasciculatim ramosus, ramis subpinnatis complanatis attenuatis; folia laxe imbricata subpatentia concava, late oblonga subacuta, apice denticulata, mediotenus uninervia, substriata; perichaetia in caulis pagina inferiore, foliis viridissimis; theca in ped. elongato erecta ovata, annulata, operculo longius rostrato; perist. d. ext. elongati angusti trabeculati, int. perforati in membrana brevi positi, ciliis 2—3 capillaribus brevissimis interpositis. †.

Leskea superba Tayl. Lond. Journ. of bot. 1846. p. 61 et cum ic. Wils. l. c. p. 452. t. 16.

Patria. Ad truncos arborum montis Pichincha prop. Quito: W. Jameson 1845; in cacumine m. Pisagua Andium Quitens. ex alt. 10,000': W. Jameson 1827.

Ex animadv. auctoris *Neckerae Trachylomati* simillima.

§. Theca inclinata.

6. **H. gymnopodum** C. Müll.; caulis procumbens o- nosus, ramis dendroideis ascendentibus basi nudis, s- sum fasciculatis, complanatis attenuatis; folia caulina l- imbricata erecto-patentia, siccitate striata, ovato- ceolata, margine basi recurva, sursum serrulata, ne tenus uninervia; perich. majora recurva; theca incli anguste apophysata ovata; perist. d. ext. lanceolati, in membrana brevi positi perforati. ☨.

Leskea gymnopoda Tayl. Lond. Journ. of bot. 1846. p. 6- Ad *H. expansum* Tayl. (*H. Porotrichum* auct.) fide Wilsoni p- nere dicitur, sed distinctum videtur.

Patria. In sylvis declivium occidentalium montis P- chincha Andium Quitensium: W. Jameson.

Ab *H. superbo* simillimo statura minori, foliis ang- stioribus acutioribus atque theca apophysata ex anima auctoris differt.

7. **H. floridum** Tayl. (Lond. Journ. of bot. 184- 339.); caulis 3—6 uncialis, basi simplex nudus, erect supra *bipinnatus*, ramis complanatis *constanter attenu* graminicoloribus; folia caulina erecto-patentia late o concava obtusiuscula *acuminulata* serrulata, mediam uninervia, plicata; perich. conferta majora; theca in p laevi subinclinata ovata, operc. longius rostrato; pers. d. ext. pallidi, int. foraminosi, ciliis *perbrevibus distinct binis* interpositis. ☨.

Patria. Prope Quito Andium: W. Jameson, Nov. 1846.

Ab *H. superbo* praeter caracteres illustratos pedun- culis creberrimis brevioribus differt.

8. **H. fasciculatum** Sw. (Prodr. Fl. Ind. Occ. p. 140.); ; caulis primarius repens, *secundarius erectus lan-*

giusculus strictus, basi indivisus, foliis squamaeformibus pallidis obtectus, angulatus, apice ramis *latiuscule complanatis fasciculatim divisis attenuatis viridissimis splendentibus frondiformi-dendroideus;* folia caulina perfecte distichacea, e basi latiore ligulato-oblonga obtusata subacuta, *summo apice erose serrata, planiuscula, margine erecta,* elliptice viridissime areolata, cellulis alaribus vix ullis, nervo valido laxiuscule celluloso ante apicem dissoluto; perich. pauca appressa, late vaginantia, interna apice subito breviter acuminata, integerrima, obsoletinervia, elongate grossius et laxius areolata; theca in ped. mediocri rubro laevi *arcuato subhorizontalis, e basi angusta oblonga,* operc. *conico-subulato rectiusculo,* calyptra angusta pallida; perist. robusti d. ext. late lanceolati, rufescentes, longius subulati hyalini, ad latera albida cellulosi, int. in membr. alta flava late lanceolati valde hiantes, ciliis 2—3 albidis aequilongis.

Brid. II. p. 396. — Hedw. Sp. Musc. p. 245. t. 62, sed sterile.

Patria. In montibus altissimis Jamaicae, ad radices arborum sterile legit Swartz. Venezuela, Caripe: Moritz 1844 fertile legit; Galipan, in lapid. humidis, elevatione 5000 pedum in prov. Caracas: Funck et Schlim, 1845, Januar. Coll. Linden. No. 355; Tovar, alt. 5000 pedum: Moritz specimina, flagellis tenerrimis permultis brevibus praedita, legit.

Species incertae sedis.

9. **H. Thieleanum** C. Müll.; *dioicum;* caulis primarius repens; divisiones erectae altiusculae *tenerrimae,* ramis *gracillimis subcompressis laxifoliis* attenuatis flexuosis simplicibus v. *brevissime ramulosis lutescentibus* superne pinnatim divisae, inferne foliis squamaeformibus *minutis* obtectae; folia ramulina *minuta, e basi angustissima sensim dilatato-ovata acuta, superne grosse serrata,* cava, margine *basi anguste revoluto,* nervo dimidiato pallido canaliculato, dorso parce dentato, cellulis rotundis incrassatis pallidis, alaribus paucis minutissime quadratis obscuris *ventricose impressis.*

Isothecium intermedium Thiele in Hb. Reg. Berol.

Patria. Brasilia: Sellow?

Omnium congenerum tenerrimus.

10. **H. subserratum** C. Müll.; caulis *subhumilis* erectus, basi indivisus, apice pinnatim dendroideus, ramis brevibus parce divisis, compressis; folia bifaria, e basi angustiore oblongo-ligulato-acuminata planiuscula, *apice serrata, grosse areolata*, nervo *crassissimo ad apicem fere producto.* †.

Neckera subserrata Hook. Ic. Pl. Rar. t. 21. f. 7. — in diagnosi in Lond. Journ. of bot. 1840. p. 13.

Patria. Nepal: Wallich.

11. **H. piniforme** C. Müll.; *dioicum?* caulis primarius longe repens, divisiones erectae *pusillae tenellae* frondiformes, jam e basi fere ramis *gracilibus* complanatis *subsimplicissimis simpliciter pinnatae lutescentes;* folia caulina *late ovato-lanceolata implana* caviuscula *subintegerrima*, margine erecto, nervo pallido ante apicem evanido, flaccido, cellulis incrassate rotundatis scariosis pallidis, alaribus vix ullis minute incrassate quadratis; ramulina *multo minora*, ovata acuta, cava, basi parum impressa, *minute erose denticulata.*

Pilotrichum piniforme Brid. II. p. 260.

Patria. In insula Guadeloupe: Hb. Candoll. et Bridel.

Species tenella pulchella, sed sterilis tantum nota.

c. *Folia binervia.*

12. **H. Arbuscula** Hook. (Musc. Exot. t. 112.); *dioicum;* caulis repens; ramus primarius palmaris erectus flexuosus rigidus, basi subnudus foliis parvis tectus, superne pinnatus, ramis *secundariis inaequalibus brevibus v. elongatis flexuosis iterum breviter ramulosis*, patentibus latiuscule complanatis; folia caulina lutescenti-viridia nitida, distichaceo-imbricata, late ovata obtusa breviter acuminata, cymbaeformi-concava, margine erecto *integerrimo*, nervis binis brevissimis obsoletis, cellulis li-

nearibus, superne subrotundis; perich. lanceolato-acuminata recurva; theca in ped. *perbrevi ovata* erecta, rufo-fusca; perist. d. ext. dense trabeculati flavo-fulvi longiusculi robusti, int. aequilongi angusti pertusi flavidi, ciliis 1—2 capillaribus parum brevioribus albidis. †.

Schw. Suppl. III. II. 2. t. 300. — *Isothecium Arbuscula* Brid. II. p. 372. — *Hookeria Arbuscula* Sm. in Linn. Trans. IX. p. 280. t. 23.

Patria. In sinu Dusky Bay dicto Novae Seelandiae: Menzies 1791.

Operculum adhuc ignotum. Notis cursive impressis a *Neckera planifolia* et *Trachylomate* distat.

13. **H. excavatum** Tayl. (Phytologist. 1844. p. 1095.); caulis decumbens laxe cespitosus valde pallide viridis; divisiones erectae breves dendroideae fasciculate divisae; folia caulina imbricata patentia concavissima rotundata breviter apiculata integerrima, humore aequaliter tumida, basi binervia; perich. lanceolato acuminata; theca ovata inclinata brevicolla, in ped. laevi posita. †.

Patria. Five Irlands, coast of New South Wales: Allan Cunningham. Australia: Fraser 1823.

Ab *H. Arbuscula* ex auctore partibus omnibus minoribus, statura magis decumbente et pedunculo longiore graciliore differt.

Sectio II. **Glossophyllum.** Caulis planissimus decumbens vel erectus, dichotome v. pinnatim ramosus, compressus, *e basi jam foliis magnis obtectus*; folia *ligulato-oblonga* bifariam imbricata planiuscula, *elliptice areolata* laevia.

Euneckeras generis *Neckerae* plantae iterantes, caracteribus cursive impressis ab *Omaliis* et *Dendroglossophyllis* distinctae, utramque sectionem optime conjungentes.

Subsectio I. **Spathularia.** Caulis decumbens *pinnatus*; folia *spathulato-ligulata.*

14. **H. trichomanoides** Schreb. (Spic. Fl. Lips. p. 88.); *monoicum;* cespites latissimi decumbentes *amoene viridissimi splendidissimi,* caulis assurgens pluries dicho-

tome divisus, anguste complanatus; folia caulina dense distichacea, e basi *angustiore subspathulate ovato-rotundata obtusissima, planissima*, margine plano, apice crenulato, nervo unico latiusculo viridi saepe furcato, ultra medium producto, cellulis mollibus *valde chlorophyllosis* ellipticis v. longioribus; perich. dense appressa vaginanti-acuminata, tenera, laxe pellucide reticulata enervia; theca in ped. breviusculo purpurascente erecta parvula cylindraceo-oblonga badia, imperfecte annulata, operc. oblique subulato; perist. d. ext. angusti lutei, superne albidi rugulosi, dense trabeculati, int. aequilongi in membr. altiuscula angusti albidi laeves distincte hiantes, ciliis singulis rudimentariis interpositis.

Neckera trichomanoides Hartm. Sk. Fl. Ed. V. p. 338. — *N. rotundifolia* ej. l. c.? — *Leskea Omalia trichomanoides* Brid. II. p. 329. — *L. trichomanoides* Hdw. Sp. Musc. p. 232. — *Fuscina trichomanoides* Schrank. Baiers. Fl. II. p. 451. — Hypnum pennatum trichomanoides, splendens, ramosum. Dill. Musc. p. 269. t. 34. f. 8.

Patria. Per totam Europam et in America septentrionali, ad truncos arborum et in terra sylvarum umbrosarum. — *Vere.* Ditissime fructificans.

15. H. falcifolium Hook. et Wils. (Lond. Journ. of bot. 1844. p. 554.); caulis procumbens vage ramosus, ramis brevibus subsimplicibus compressis; folia disticha patentia oblongo-acinaciformia obtusa enervia integerrima; theca in ped. laevi elliptica oblonga nutans, operculo conico. †.

Patria. Insel-Bay Novae Seelandiae: J. D. Hooker.

Ex animadv. auctorum species memorabilis, foliis splendentibus et habitu *H. trichomanoidis.*

16. H. Webbianum C. Müll.; *H. trichomanoidi* simillimum, sed folia magis rotunda, *firmiora*, nervo unico *vix conspicuo;* perich. e basi vaginante angustata *linguaeformia*, enervia v. breviter obsolete binervia; theca *subaequalis ovata, ore coarctata;* perist. d. ext. *lati robusti*, int. *latiores* ciliis *binis* rudimentariis interjectis.

Hookeria Webbiana Mont. in Hist. d. II. Canar. p. 12. t. 1. f. 1.

Patria. Teneriffa, in sylva Agua Garcia: Webb, dein in locis non indicatis Despréaux.

17. **H. spathulaefolium** C. Müll.; *dioicum; H. trichomanoidi* simillimum, caulis longe repens; divisiones decumbentes simplices, dichotomi *v. in frondem subrotundate dendroideam bipinnatae;* folia e basi *brevissime angusta subenervi sensim latissime spathulato-rotundata,* apice *truncato-obtusato integerrimo,* planissima subsymmetrica, cellulis rotundatis viridibus firmiusculis.

Patria. India Orientalis: Hb. Sendtner.

E foliis *Mniadelphos* in memoriam revocans et divisiones dendroideae *H. microdendro* simillimae.

18. **H. microdendron** C. Müll.; *dioicum;* caulis secundarius in frondem planissimam *humilem* 1—3 pinnatam subrotundate dendroideam divisus, amoene viridis, splendens; folia angustiora, apice magis rotundato haud truncato *crenulato,* nervo unico *distincte conspicuo pallido tenuissimo* ultramedio.

Hookeria? microdendron Mont. Voy. Bonite. Crypt. t. 150. f. 3.

Patria. Cochinchina, in cort. arborum prope Tourane: Gaudichaud.

Ob vestigia laudata ab *H. spathulaefolio* proximo certe distat.

Subsectio II. **Euglossophyllum.** Caulis decumbens *dichotome ramosus;* folia *ligulato-acuminata laevia.*

19. **H. radiculosum** C. Müll.; *monoicum;* repens prostratum radiculosum dichotome vage ramosum compressiusculum, ramis brevibus pallide viridibus splendidulis; folia caulina densiuscule imbricata, madore inordinate laxa, *e basi latiore* oblongo-ligulata obtuse breviter acuminata, basi caviuscula, superne subplana, margine erecto integerrimo, nervo valido ante apicem evanido, cellulis *ellipticis incrassatis pallide virentibus,* alaribus multis *incrassate quadratis* planissimis, intus granulosis obscuris; perich. pauca subappressa, vaginantia acuminata vix denticulata obsoletinervia basi laxius reticulata; theca in ped.

longiusculo gracili rutilante laevi *erecta minuta obconica*, exannulata pallida, dein fuscescens, leptodermis, operc. *turgide conico oblique acuminato* ochraceo; perist. d. ext. angustiusculi lutei dense trabeculati, int. aequilongi albidi angusti subpertusi, apice parum rugulosi, ciliis 1—2 rudimentariis.

Pterygophyllum radiculosum Brid. II. p. 346. — *Hookeria radiculosa* Hook. Musc. Exot. t. 51.

Patria. Venezuela, in crepidinibus prope Caripe, locis scopulosis temperatis irriguis, elevatione 480 hexapodum: Humboldt et Bonpland. Prov. Caracas: Moritz Coll. I. No. 53.

H. brevipedi proximum.

20. **H. brevipes** C. Müll.; *monoicum; H. radiculoso* simillimum, sed minus, folia *anguste subspathulato-ligulata, distincte obtusa,* tenuiter nervosa, cellulis *ubique mollibus, haud incrassatis, amoene chlorophyllosis;* perich. magis ligulato-acuminata, laxius reticulata; theca in ped. *perbrevi* erecta, minute *ovalis, ore coarctata,* ochracea, exannulata, operc. *brevissimo conico-rostellato;* perist. brevius et angustius.

Patria. Brasilia, prope Rio Janeiro: Beske.

21. **H. odontocalyx** C. Müll.; *H. radiculoso* simillimum, sed exilius, minus radiculosum, folia caulina angustiora, perich. magis nervosa, *apice distincte serrulata;* ped. laevis rutilans longiusculus.

Hookeria radiculosa Hsch. in Musc. Drègeanis.

Patria. Prom. b. spei: Drège.

E theca, adhuc ignota, ab *H. radiculoso* verosimiliter distinctius quam caractere laudato diversum et quoad patriam procul dubio species propria.

22. **H. Indicum** C. Müll.; *dioicum; H. radiculoso* simillimum, sed theca *brevius pedunculata horizontalis oblonga;* perist. internum ciliis singulis *multo distinctioribus longis.*

Hookeria obtusifolia Harv. in Hook. Ic. Pl. Rar. t. 24. f. 11; um diagnosi in Lond. Journ. of bot. 1840. p. 15. — *Pterygophyllum Indicum* Bél. Voy. dans l'Indie or. Crypt. p. 87. t. 9. f. 2!

Patria. Nepal, in terra (?): Wallich. In arboribus humide crescentibus prope Carnate Indiae orientalis: Bélanger.

23. H. parvifolium C. Müll.; monoicum; laxe cespitosum; caulis *gracillimus pusillus* repens laxius *magis pinnatus*, ramis subcomplanatis brevibus viridissimis; folia minuta *laxius* imbricata erecto-patentia, siccitate incurva crispula, ovata concava obtusiuscula papillosa integerrima, nervo *hyalino infra apicem* evanido dorso prominente; perichaetia conspicua, foliis laevibus latioribus, ext. minutissimis, internis lanceolato-subulatis, nervo percurrente, dense appressa erecta; theca in ped. gracillimo subbiunciali *scabro* apice curvo cernua ovata, operc. *longirostro*, calyptra dimidiata; perist. d. int. subulati. †.

Hookeria parvifolia Tayl. Lond. Journ. of bot. 1848. p. 193.

Patria. Andes Quitenses, Puerto del Napo: Dr. Manuel Villavicensio.

Ex obs. auctoris *H. radiculoso* simillimum, a quo notis accuratius designatis differre legitur.

Sectio III. **Omalia** Brid. II. p. 325. — Caulis decumbens dichotome vel pinnatim ramosus compressus vel complanatus; folia *ovato-acuminata elongate reticulata*, saepius secunda.

Glossophyllis proximae, foliorum forma atque reticulatione diversae.

Subsectio I. **Vesicularia.** Caulis *hookerioideus eleganter pinnatus*; folia laxe reticulata, plerumque asymmetrica, laevia, binervia.

Lepidopila generis *Hookeriae* referentes.

a. *Folia integerrima.*

α. *Folia breviter acuminata.*

24. H. Meyenianum Hmp. (in litt.); caulis subanguste complanatus depressus, subregulariter breviter pinnatus nitens viridissimus; folia caulina *constanter asym-*

metrice late ovata oblique acuminata, acumine *plicato reflexiusculo*, margine *integerrimo*, nervis valde obsoletis, cellulis *mollibus ampliuscule laxis*, *maxime pellucidis*, *parietibus valde chlorophyllosis*; perich. *anguste longe lanceolato-acuminata* integerrima enervia; theca in ped. elongato glabro tenuissimo horizontalis *cylindraceo-oblonga*, *deoperculata sicca ore maxime constricta*, oper. conico acuminato, calyptra glabra, perist. int. ciliis binis rugulosis interpositis.

Acosta Meyeniana C. Müll. Linn. XXI. p. 194. — *Hookeria Meyeniana* Hmp. Ic. Musc. t. 3.

Patria. Manila: Meyen.

Ab *H. inflectente* habitu simillimo caracteribus exp sitis differt.

25. **H. Montagnei** C. Müll.; *H. Meyeniano* simillimum, sed *angustius complanatum*; folia caulina mul *minora et tenuiora*, e basi maxime truncatâ asymmetri ovato-acuminata, acumine acuto planiusculo reflexo flexuoso, margine integerrimo, cellulis marginalibus pe chydermibus pseudo-denticulato, nervis *obsoletissimis ullis*, cellulis magis chlorophyllosis, *utriculo primordi maxime evoluto saepe densissime repletis tenerrimis*; pe rich. *tenuissime filiformi-acuminata*; pedunculus et theca *H. Meyeniani.*

Pterygophyllum Montagnei Bél. Voy. dans l'Ind. or. 1835. Bo. II. Crypt. p. 85. t. 9. f. 1.

Patria. Java, ad ped. arbor. pr. Buitenzorg: Bélanger.

26. **H. rutilans** C. Müll.; *dioicum?* breviter regulariter pinnatum, ramis subsimplicibus erecto-patentibus v. dichotomis decurvatis, *viridissimis v. luteo-viridibus*, tenuiter complanatis, tenellis; folia rami fertilis laxe conferta, parvula, e basi cordata enervi v. obsoletissime nervosa *latiuscule ovato-acuminata*, parum concava, *integerrima*, *laxe chlorophyllose ampliuscule* pellucide reticulata, *mollia*; perich. late lanceolata convolutacea, longius flexuose acuminata, laxius reticulata; theca in ped.

ongiusculo glabro rutilante minuta nutans *rotundo-ovata*, perc. conico acuto obliquo.

Leskea (Omalia) rutilans Brid. II. p. 332.

Patria. Portorico: Bertero. Venezuela, Cumbre le Valenzia, alt. 3000′: Wagner 1848. Insula St. Caharina Brasiliae, loc. umbrosis pr. Destero, Jan. et Febr. 1847: Pabst.

Ab *H. subdenticulato* differt: notis cursive impressis et fol. perich. haud filiformi-acuminatis, ab *H. conostego*: ramis viridibus, cellulis mollibus laxiusculis chlorophyllosis, ab *H. Pöppigiano:* foliis conformibus enervibus v. obsoletissime nervosis senioribus mollibus, magis ovatis. Parce fructiferum.

27. **H. Pöppigianum** Hmp. (in litt.); repens *irregulariter* pinnatum, ramis brevibus *curvatis fuscis vel junioribus amoene viridissimis teneris*, vix complanatum; folia distincte inflectentia ramorum seniorum fuscorum angusta, late lanceolato-acuminata, apice parum falcata, integerrima, cellulis inanibus sordide pellucidis firmiusculis, nervis *distinctis tenuibus brevibus flavidis*, folia ramorum juniorum viridium minora chlorophyllosa magis complicata subenervia; perich. magis acuminata; theca in ped. elongato glabro rubro tenui nutans parvula oblonga, ore constricta, operc. turgide conico acutiusculo; perist. d. int. ciliis binis.

Hookeria Pöppigiana Hmp. Ic. Musc. t. 4.

Patria. Peru, Cuchero: Pöppig.

Ab *H. rutilante* caracteribus laudatis differt.

28. **H. vesiculare** Schw. (Suppl. II. II. 2. t. 199.); *monoicum;* caulis repens subpinnatus deplanatus *angustissimus* brevirameus tenellus amoene viridis; folia caulina disticha, laxiuscule disposita, *parvula symmetrica stricta ovato-acuminata* enervia integerrima, e cellulis laxissimis majusculis pellucidis amoene viridi-pachydermibus composita; perich. e basi *vaginante late ovata subito reflexiuscule acute acuminata,* laxius reticulata; theca in ped. mediocri rufescente laevi nutans *urceolata macrostoma,*

sicca ore constricta, parva, operc. conico-rostrato recu calyptra glabra; perist. d. ext. praelongi lineari-lanceolati badii sulcati, int. angustiores subsolidi flavidi aequ longi, ciliis aequilongis binis v. tenuis capillaribus co flatis. †.

Hookeria praelonga W. Arn. Disp. d. M. p. 56, ex anima Wilsoni in Lond. Journ. of bot. 1848. p. 278, huc pertinere dicit

Patria. Ad rupes et fontes prope plantationem Rich mond Jamaicae: Reider, Vindobonensis.

29. **H. scaturiginum** Brid. (II. p. 418.); caulis elo gatus *flaccidissimus flexuosus*, ramis *flexuosis flaccidi simis* pallide viridibus pinnatim dispositis brevibus v elongatis; folia caulina *laxissime bifariam disposita* c *torta*, e basi truncata asymmetrico-ovato-acumina caviuscula, acumine subobliquo, margine erecto integ rimo, nervis binis *maxime obsoletis*, cellulis ubique l elongatis *flaccidis* pellucidis.

Patria. Insula Bourbonis, in scaturiginibus, ex in fonte rivuli des Remparts dicto, aquis innatans: Bo St. Vincent.

E caract. explicatis facile discernibile.

β. Folia pilifera.

30. **H. reticulatum** Dz. et Molkb. (Ann. d. sc. n 1844. p. 309.); *monoicum;* prostratum, ramis br subaequalibus tenuibus *luteis* subpatentibus pinn compressum; folia caulina imbricata, *e basi latissi truncata enervi vel vix nervosa late ovata, in acum subfiliforme longum flexuosum producta, integerrima, u aequaliter plana*, cellulis *laxissimis lutescenti-pellucid* inanibus; perich. longissime acuminata; theca in ped elongato tenuissimo laevi nutans ovato-urceolata, operculo convexo depresso mucronato.

Patria. Java.

Flos masc. minutus, polyphyllus, foliis minutis e basi a ovata filiformi-acuminatis.

31. **H. verrucosum** Hmp. (Ic. Musc. t. 10.); caulis rocumbens gracilis irregulariter pinnatim ramosus tenellus, ramis brevibus simplicibus attenuatis apice curvatis enuibus; folia caulina concava, ex cordato ovato-lanceolata longe acuminata integerrima enervia secunda v. falato-tortilia, *margine involutaceo*, cellulis elongatis *laiusculis;* perich. longius acuminata recta; theca in ped. evi *arcuato nutans minuta ovata urceolata, maxime errucosa*, operculo *conico brevi obtuso;* perist. d. ext. ngusti breves, int. angusti imperforati, ciliis singulis interjectis.

Patria. Java.

Notis cursive impressis facile distinguitur.

32. **H. cuspidatifolium** C. Müll.; *dioicum;* late spitosum, repens *irregulariter ramosum* appressum, *llide viride, foliis angustis subcontortis sursum inflexentibus subhomomalle anguste complanatum* et *subcrinium*, madefactum planum; folia caulina dense imbricata, *ongiuscule anguste lanceolata oblique tenuiter acuminata, ellula solitaria elongata acuta terminata*, caviuscula, *nervia*, cellulis *paucis elongatis laxiusculis albidis, utriulo primordiali tenuissimo substriatulis*, integerrima; erich. e basi lata vaginante longissime acuminata; theca ped. tenuissimo longiusculo glabro inclinata v. nutans inutissime ovalis, ore constricta, operc. turgide conico, nge oblique rostellato, calyptra minuta straminea glabra; erist. d. ext. linea diaphana exarati, anguste subulati ense trabeculati, *interni longiores* flavidi articulati angusti imperforati, *ciliis nullis.*

Acosta cuspidata C. Müll. Linn. XXI. p. 192.

Patria. Surinam, pr. Paramáribo, in truncis putridis ylvarum, Febr. 1844: Kegel.

Leskeae leucostegae Brid. habitu simillimum et caracteribus explicatis species distinctissima.

33. **H. crinitifolium** C. Müll.; *dioicum;* ramis irregularibus, brevibus et elongatis, *glauco-viridibus, foliis ongissimis angustissimis contortis, lanceolatis, longissime*

conico longe rostrato obliquo ferrugineo; perist. d. ext. linea media late diaphana exarati subtilissime et margine prominenti-trabeculati fusci, int. in membr. lutea reticulata aequilongi solidi, calyptra cucullata straminea pilosa. †.

Hookeria strumosa Hsch. Pl. Bras. I. p. 69.

Patria. Brasilia, in truncis demortuis sylvarum antiquissimarum, in Serra dos Orgaôs, Febr.; pr. Sebastianopolin Octobri: Beyrich; in lapidibus ibidem, Julio et Aug. c. fr. maturis: Merkel; pr. Tijucam: Olfers.

Cui affine?

b. *Folia denticulata.*

α. Folia breviter acuminata.

36. H. inflectens C. Müll.; *subanguste complanatum*, decumbens, *subregulariter et breviter pinnatum, luteo-viride nitens*, appressum, *planissimum;* folia caulina densiuscule conferta patentia, sicca citissime *introrsum inflectentia*, caviuscula, *late ovata acuminata, margine plano apice obsolete denticulato, nervis brevissimis obsoletis*, cellulis *firmiusculis elongatis anguste laxis, e viridi pellucidis;* perich. e basi latissime truncata convolutacea, inferne laxe reticulata enervi latius ovata, *apice inaequaliter sinuate et grosse dentate obtusa, acumine longissimo flexuoso sensim tenui terminata*, externa minora haud sinuata; theca in ped. elongato crassiusculo glabro nutans, deoperculata *ampla hemisphaerica.*

Leskea (*Omalia*) *inflectens* Brid. II. p. 331.

Patria. Ex Otaheite Australiae: Dumont d'Urville.

37. H. acinacifolium Hmp. (in litteris!); *monoicum;* caulis depressus complanatus latiusculus, breviter pinnatus, viridissimus; folia caulina laxiuscule imbricata, *latiuscule asymmetrico-ovato-oblonga, obtuse acuminata*, caviuscula, obsoletissime binervia, elongate laxe chlorophyllose reticulata, *obscure denticulata;* perich. vaginantia laxius reticulata longiuscule acuminata *integerrima;*

theca in ped. *elongato* purpureo laevi *nutans, urceolato-ovalis,* ore coarctata, badia; perist. d. ext. ferruginei, int. flavi laeves, ciliis binis *in unum coalitis* articulatis albis *rugulosis.*

Patria. Nova Seelandia, Strong Island, ad radices: Hb. Sonderianum.

H. Meyeniano v. inflectenti simillimum; a primo foliis denticulatis, a secundo foliis haud inflectentibus jam facile distinguitur et caracteribus laudatis cognoscitur.

38. **H. urceolatum** Hsch. (Fl. Bras. I. p. 87. t. 4.); *monoicum;* prostratum, ramis brevibus inaequalibus lutescentibus nitidis compressis densifoliis; folia caulina dense imbricata, *anguste lanceolata acuminata stricta v. parum apice falcata, enervia, supra basin distincte denticulata,* e cellulis *angustissimis elongatis leptodermibus parum chlorophyllosis mollibus ubique composita;* perich. angustius acuminata; theca in ped. longiusculo tenui glabro nutans, minute ovalis urceolata, operculo cupulato mamillato, calyptra glabra; perist. d. int. ciliis 2—3 interjectis.

Patria. Brasilia, prope Sebastianopolin, in sylvis montanis, Augusto: Martius.

39. **H. nutans** Nees (Hb.); prostratum, ramis brevibus subaequalibus tenuibus *valde compressis pallide viridibus* subpatentibus pinnatum, *latius,* flaccidum; folia caulina *laxe* imbricata *majora, e basi late cordato-ovata breviter et stricte acuminata,* integerrima vel apice vix denticulata, aequaliter caviuscula, nervis vix ullis obsoletissimis, cellulis laxissimis elongatis mollibus teneris *parum chlorophyllosis v. hyalinis;* perich. longissime filiformi-acuminata; theca in ped. elongato nutans minute ovalis, operc. conico acuto recto.

Patria. Java, in tumulis Badnorum: Junghuhn.

H. reticulato structura folii proximum, caracteribus autem laudatis certe recedens. *H. Montagnei* jam primo aspectu ramis eleganter pinnatis et distiche foliosis viridissimis teneris densis differt.

40. **H. Zollingeri** C. Müll.; *dioicum?* repens *tenuicaule*, ramis inaequaliter brevibus flexuosis flaccidis, *siccitate rigidiusculis, luteo-viridibus, dein nigrescentibus;* folia caulina laxe imbricata irregulariter inflectentia, parvula, concava, angusta, e basi *infima parum constricta oblonga, breviter et oblique saepe reflexo-acuminata,* margine erecto superne tenuiter denticulato, cellulis *angustissime linearibus luride viridibus,* nervis inaequalibus tenuissimis flavidis; perich. e basi planiuscula vaginante pallida *longiuscule anguste acuminata acuta, reflexiuscula* subintegra enervia, infima basi laxius reticulata; theca in ped. elongato laevi tenui rubro minute ovalis inclinata, calyptra minuta glabra, perist. minuto aequali, interno ciliis tenerrimis brevibus.

Patria. Java: Zollinger No. 1606.

Ab *H. reticulato* simili vestigiis notatis facile distinguitur.

41. **H. Dubyanum** C. Müll.; *dioicum;* latiuscule complanatum, robustum, firmum, late cespitosum, procumbens, sordide lutescens, ramis inaequalibus apice saepe curvatis brevibus pinnatum; folia caulina dense imbricata, erecto-patentia, *subsymmetrico-ovata breviter acuminata concava, margine* erecto v. parum reflexo *ubique denticulato, nervis tenuissimis brevibus flavidis,* cellulis *angustis brevibus, aliis angustissimis, aliis amplioribus pellucidis igitur irregularibus,* pallide viridibus; perich. e basi latissime vaginante longissime flexuose acuminata, laxius reticulata, apice remote acute denticulata; theca in ped. laevi elongato apice maxime arcuato cygneo-nutans, oblonga, ore constricta, operculo depresso oblique rostellato; perist. dentes interni externos aequantes, ciliis 2—3 brevibus rugulosis.

Hypnum reticulatum Dub. (haud Dz. et Molkb.) in Pl. Zollinger. No. 1580.

Patria. Java: Zollinger.

Ab *H. reticulato* simili notis litteris cursivis impressis distinctissimum.

β. Folia longe acuminata.

42. **H. subdenticulatum** C. Müll.; *monoicum;* ramis *semper patentibus vix flexuosis regulariter* pinnatum tenuissime complanatum, foliis valde inflectentibus deorsum utrinque subsecundum, *pallidum scariose firmum;* folia caulina seniora angusta, lanceolata, *longe et falcate* acuminata, planiuscula, *subscariosa, superne denticulata,* cellulis *densiusculis* sordide pellucidis, utriculo primordiali plerumque repletis, nervis *obsoletissimis pallidis;* juniora *parum* chlorophyllosa; perich. late lanceolata, *longissime filiformi-acuminata,* parum falcata, obsolete denticulata, enervia, elongate areolata; pedunculus, theca et peristomium *H. Pöppigiani;* operculum *turgide et depresse cupulatum, oblique rostratum submamillatum.*

Acosta Swartzii C. Müll. in Pl. Kegel. Linn. XXI. p. 191.

Patria. Insula Trinidad, Moruga 20. Octbr. 1847: Crüger; Portorico: Bertero. Surinam, locis humidis apricis pr. Paramáribo: Kegel, Weigelt.

Flos masc. minutus, foliis lanceolato-acuminatis. Notis cursive impressis ab *H. Pöppigiano* differt.

43. **H. conostegum** C. Müll.; *monoicum; H. subdenticulato* simillimum, sed *irregulariter* pinnatum, ramis *siccitate distincte curvatis flexuosis tenerioribus subcontortis lutescentibus hic illic fuscidulis,* humore patentibus; folia obsolete denticulata saepe integerrima; pedunculus, theca et peristomium *H. Pöppigiani;* operculum *turgide conicum acutum.*

Leskea (*Omalia*) *rutilans* β. *Portoricensis* Brid. II. p. 332, e spec. imperfectis Hb. Brid. forma flaccidior videtur.

Patria. Cuba: Döring; Portorico: Bertero.

Incertae sedis.

44. **H. argute-serratum** C. Müll.; *monoicum;* caulis declinatus, inferne simplex, superne subfastigiatim ramosus, ramis brevibus complanatis pinnatis; folia caulina remota conspersa, *patentia* v. subsquarrosa, subcordata breviter acuminata, serrulata, caviuscula, binervia, ramea

disticha ovato-lanceolata acuta argute serrata, nervis infra medium dissolutis, omnia pallide viridia, e cellulis linearibus laxiusculis areolata; perich. ovate lanceolata acuminata, intima in acumen subulatum flexuosum producta, hyalina, laxius reticulata; theca in ped. purpureo tortili laevi longiusculo apice curvato horizontalis, *oblonga* aequalis, badia; perist. d. int. perforati lanceolato-subulati lutescentes, ciliis binis hyalinis subulatis articulatis interjectis. †.

Hookeria Sellovii Hsch. Fl. Bras. I. p. 66.

Patria. Brasilia: Sellow.

H. hookerioidi maxime affine ab auctore declaratur, differt autem notis laudatis.

Subsectio II. **Euomalia.** Caulis plus minus robustus, *dichotome divisus*; folia *plerumque angustius reticulata*, symmetrica laevia, rarius secunda, 1—2 nervia.

Entodontes generis *Neckerae* optime referentes, et a *Vesicullariis* notis cursive impressis, a *Taxicaulibus* statura robusta distantes.

I. *Folia uninervia.*

a. *Folia integra*

45. **H. Berteroanum** Mont. (Ann. d. sc. nat. 1845. 4. p. 89.); *dioicum;* caulis laxissime cespitosus repens *elongatus* vage ramosus, ramis brevibus v. *elongatis remotis vix ramulosis* flexuosis flaccidis *anguste complanatis sciuroideis lutescentibus nitidis;* folia caulina amoene conferta, humore patula, e basi *rotundate contractâ late ovato-acuminata,* acumine brevi, caviuscula estriata, margine erecto *integerrimo*, nervo tenui viridi ultra medium evanido, cellulis *angustissime linearibus conflatis vix conspicuis amoene lutescentibus*, alaribus *vix ullis quadratis ad basin infimam intractam positis;* perichaetialia exserta, longiuscule convolutacea, breviter acuminata, recta, enervia, cellulis basi laxissimis, superne conflatis, omnibus tenerrimis pallidissimis; theca in ped. longiusculo rubro gracili laevi inclinata cernuo-ovalis, late annulata, operc.

conico brevi; perist. d. ext. pallidi, apice subpunctulati integri, interni aequilongi pallidi solidi, laeves, ciliis parum brevioribus 2—3 albis subnodosis.

Patria. Chile, locis non designatis legit Pöppig; prope Quillota in collibus sylvaticis herbidis m. Sept. Bertero.

Species pulcherrima, notaculis pulchris jam facile distincta, *H. Megapolitano* habitu haud dissimilis.

46. **H. seminerve** C. Müll.; *monoicum;* caulis cespitosus prostratus pallescenti-viridis splendidulus *angulis* complanatus, subsciuroideus, ramis dichotomis simplicibus v. pinnulatus; folia caulina *sicca et madefacta dense imbricata, e basi subovata lanceolatâ in acumen longum piliferum attenuata, valde symmetrica, basi haud impressa,* margine erecto *integerrimo,* nervo ad medium evanido carinato, cellulis elongatis laxiusculis virescentibus, alaribus *multis planis laxe quadratis intus grosulosis;* perich. e basi late vaginante laxissime et tenerrime reticulata multo latiore enervi latiuscule acuminata vix reflexa integerrima; theca in ped. brevi laevi rutilante erecta anguste oblonga exannulata fuscidula parvula operc. *conico obtuso brevi recto;* perist. d. ext. angusti lanceolati lutei breves dense trabeculati, int. flavidi subpertusi angusti, ciliis *singulis rudimentariis* interpositis.

Helicodontium seminerve Schw. Suppl. III. II. 2. in indice. — *Leskea seminervis* Kze. in Pöppig. Pl. Chil. Exs. I. No. 25. — Schw. Suppl. III. II. 1. t. 273.

Patria. Chile, prope Concon in convalli „los Choros" ad cort. arborum majorum ideoque rarum: Pöppig in societate *Barbulae scabrinervis* 1827. Sept. legit.

Ab *H. serrulato* et affinibus notis laudatis primo adspectu differt. *H. trichophoro* simillimum.

47. **H. Peruvianum** Mont. (Voy. Bonite. Crypt. t. 150. f. 2.); caulis gracilis flexuosus, ramis brevibus *distichis patentibus, subtus radiculosis, arcte repentibus; folia dimorpha:* caulina ovato-lanceolata laxis, ramea ovata concava acuminata dense imbricata, seminervia, in-

egerrima; perich. conformia enervia; theca urceolata inequalis subhorizontalis, operc. conico-acuminato obtuso, imidio breviori. †.

Patria. Ad ligna decorticata carie consumpta arctissime totum adrepens in viciniis Guayaquil regni Peruviani: Gaudichaud.

Ex auct. dispositione foliorum *H. radiculoso* simile.

48. **H. Tavoyense** Hook. (in Wallich. Catal. No. 655.); repens prostratum vage ramosum, gramineo-viride lucidum, brevirameum, *subcomplanatum;* folia bifaria, ensiuscule imbricata, *ovata acuta,* plana *flaccida patentia* integerrima seminervia; theca in ped. brevi *horizontalis* parvula oblonga, breviter conico-operculata; perist. nt. imperforatum, ciliis singulis interjectis. †.

Harvey in Hook. Ic. Pl. Rar. t. 24. f. 1. — Cum diagnosi in ond. Journ. of bot. 1840. p. 19.

Patria. India Orientalis, Tavoy et Penang.

Species non satis nota.

49. **H. Boryanum** Schw. (Suppl. I. II. p. 207.); caulis decumbens bipinnatus vel tripinnatus, interdum subimplex depresso-planus sesuncialis, ramis aequilongis, amulis attenuatis, pluribus simplicibus, nonnullis subpinatus; folia caulina bifaria imbricata, subquadrifaria, ovata btusa, sub apicem rotundata, concava, aliquando striis ubmarginalibus totum fere folium obtegentibus notata, avescentia, nervo debili vix ultra medium pertingente, enuissime et fere inconspicue subrotundo-areolata. †.

Brid. II. p. 393.

Patria. Insula Bourbonis: Bory St. Vincent steile legit.

b. *Folia denticulata.*

α. Folia laevia haud undulata.

†. *Pedunculus laevis.*

50. **H. rotundifolium** Brid. (II. p. 768.); *dioicum;* cespites depressi viridissimi laxe intricati; caulis tenellus

laxissime distiche foliosus parce dichotome divisus; folia caulina e basi *brevi angustiore haud impressa late rotundato-ovata breviter acuminata* caviuscula, margine *inferne convexo, superne subdenticulato*, nervo ad medium evanido carinato unico integro, cellulis *ubique amplis laxis pellucidis, utriculo primordiali ad parietes flexuoso*; perich. pauca, vaginantia acuminata, *integra*, enervia, *laxissime pellucide reticulata, tenerrima;* theca in ped. *brevi* rutilante laevi recto *subinclinata turgide ovata* pallida, annulata, operc. longe oblique subulato; perist. II *serrulati*, ciliis internis interjectis binis.

H. confertum β. rotundifolium Brid. II. p. 407.

Patria. Ad lapides et inter fruticeta in opacis umbrosissimis arcis Heidelbergensis, sociis *H. depresso, confertо, Algiriano* et *murali:* A. Braun detexit; locis idem prope Monachium, lateres circa Harlaching obtegere Sendtner, in Nagelfluhe prope „den Kalköfen oberhalb Maria-Einsidl": W. Gümbel; prope Argentoratum Kneiff et pr. Salisburgum Sauter legisse dicuntur; in Delphinatu a Déjean lectum Hb. Bridel. habet. — *Octobri et Novembri.*

Ab *H. conferto* caracteribus cursive impressis longe differt et pulchella species. Ab *H. serrulato* affinissimo oculis nudis colore viridissimo jam distinguitur.

51. **H. serrulatum** Hdw. (Sp. Musc. 1801! p. 2 t. 60.); *monoicum;* caulis laxe cespitosus decumbens chotome divisus v. pinnulatus vage ramosus, pallide viridis; folia caulina *laxe disticha subpatentia, ovato-lanceolata, plus minus acuminata, caviuscula, margine erecto serrulato, nervo tenui ultra medium evanido*, cellulis elongatis *angustis*, alaribus laxe quadratis pellucidis *indistinctis infima basi utrinque nervi ventricose impressis*; perich. e basi vaginante enervi laxius reticulata integerrima longe subreflexe tenuiter acuminata subdenticulata; theca in ped. laevi rutilante plus minus elongato apice incrassato *horizontalis cernuo-oblonga brevicolla, late annulata*, operc. *conico subulato obliquo;* perist. d. ext. an-

gustiuscule lanceolato-acuminati rufescentes dense trabeculati, int. in membrana alta flavida angusti subpertusi, ciliis *tribus teneris aequilongis* albidis.

Brid. II. p. 390.

Patria. America septentrionalis, ubi Mühlenberg primus legit.

52. **H. subclavatum** Hmp. (in litteris!); *monoicum; H. serrulato* simillimum, sed folia *pallida, haud chlorophyllosa, angustissime reticulata, vix conspicue denticulata;* perich. *subintegerrima stricta;* theca *longissime* pedunculata, multo minor, inclinata, *non arcuata, gibbose* ovalis *brevis.*

H. radicale Hsch. in Musc. Sieber. Nov. Holl. No. 2!

Patria. Nova Hollandia: Sieber.

53. **H. Javanicum** Bél. (Voy. dans l'Indie or. Bot. II. Crypt. p. 88. t. 10. f. 1.); *monoicum; H. serrulato* simile, folia laxissime disticha, e basi angustiore *vix* impressa *longiuscule ovato-lanceolato-acuminata denticulata, laxe* areolata; perich. *longissime* acuminata *laxius reticulata;* theca in ped. gracili rutilante laevi mediocri nutans *minute oblonga aequalis* operculo et peristomio *H. serrulati,* ciliis internis binis interpositis.

H. pellucidum Dz. et Molkb. Ann. d. sc. nat. 1844. 4. p. 308.

Patria. In Javae sylvis humidis altioribus primus legit Bélanger, cujus specimina quoque examinavimus. E Java et Sumatra habuerunt Dozy et Molkenboer.

54. **H. senodictyon** C. Müll.; *monoicum; H. serrulato* simillimum, *valde depressum et anguste complanatum* breviter subpinnatum; folia *anguste lanceolato-acuminata, breviter angustissime et densissime areolata,* subdenticulata; theca in ped. mediocri apice vix vel parum incrassato, operculo brevi conico *tenerrime* oblique aciculari; perist. intern. ciliis 1—2 interpositis.

Patria. Prom. b. spei, in sylva primaeva prope Krakamma in districtu Uitenhagen: Ecklon 1832, Julio.

Planta habitu hookerioidea.

55. **H. brachypterum** Hsch. (Linn. XV. p. 142.); caulis repens debilis pinnato-ramosus, ramis patentibus simplicibus pennaeformibus brevibus; folia caulina distichacea patentia *remotiuscula oblique inserta, lanceolata obliqua acuminulata, plana, serrata, pallide* viridia, nervo obscuriore ultra medium evanido, cellulis anguste linearibus; perich. imbricata, apicibus patentissimis, externa minora ovato-lanceolata acuminata integerrima enervia, interiora sensim longiora, basi late vaginata *repentine angustata,* acuminata, laxe reticulata; theca in ped. longiusculo laevi purpurascente cernua *pendula* brevis oblongo-ovata brunnea; perist. d. ext. ferruginei, superne albicantes, int. lutescentes perforati, ciliis binis hyalinis brevioribus articulatis. †.

Patria. Prom. b. spei, inter Outniqualand et Langekloof prope Roodemuur in sylva, alt. 1500 pedum: Drège 1831. 25. Oct.

H. senodictyo affine, notis tamen expositis diversum videtur.

56. **H. Sellowii** Hsch. (Fl. Bras. I. p. 79.); *monoicum; H. serrulato* simillimum, *valde depressum et complanatum,* longe vagum; folia caulina basi vix impressa, *ovato-acuminata, laxius reticulata;* theca *brevis urceolato-ovata, haud cernua,* sicca ore maxime coarctata longipedunculata; perist. int. ciliis 2—3 interpositis.

Patria. Brasilia, Monte Video: Sellow; Rio Janeiro: Beske.

57. **H. Huitomálconum** C. Müll.; *monoicum; H. Sellowii* simillimum, sed robustius, folia *multo majora, late ovata longe acuminata, argute serrulata,* basi vix impressa; perich. *longissime acuminata,* laxius reticulata, subdenticulata; theca in ped. *longissimo* crassiusculo *erecta, ob pedunculum arcuato-flexuosum deorsum spectans, longiuscule cylindrica,* ore maxime coarctata; perist. *multo robustius et longius,* internum valde hians, ciliis binis longis interjectis.

H. serrulatum Hsch. in Musc. Mexic. No. 1095.

Patria. Mexico: Deppe et Schiede, prope Huimalco.

58. **H. campylocarpum** C. Müll.; *monoicum; H. ellowii* simillimum, sed folia caulina e basi vix imessâ *valde inaequalia*, ovato-acuminata, *plerumque plano-complicata;* theca in ped. graciliore *angusta valde rcuata* horizontalis, operc. *depresso conico prominente,* nge oblique aciculari; perist. *robustius*, internum *valde ans*, ciliis binis brevioribus interpositis.

H. Sellowii C. Müll. Linn. XIX. p. 219. Hampe l. c. XX. p. 85.

Patria. Venezuela, Caripe: Moritz No. 77.

59. **H. Gaudichaudii** Mont. (Ann. d. sc. nat. XIX. 343. p. 238.); *monoicum;* caulis intricatus longe repens ige pinnatim ramosus complanatus latiusculus inordinate istiche foliosus sordide viridis; folia caulina laxe dispota patentissima, *latissime ovato-acuminata,* caviuscula, oto ambitu *distincte serrulata*, nervo dimidiato, margine recto, cellulis *breviusculis laxis* pellucidis, basi amplioibus, apicem versus sensim brevioribus; alaribus ad inmae basis alam extremam *ventricosis;* perich. ext. reurva, enervia; theca in ped. mediocri rubro laevi *mida anguste cernuo-oblonga* horizontalis, operc. e conico nge aciculari obliquo; perist. int. ciliis 2—3 interpositis.

Cum icone in Voy. Bonite. Crypt. t. 150. f. 1.

Patria. Insulae Sandwich, ad cort. arborum: Gaudichaud.

Ab *H. serrulato* et affinibus caracteribus accuratius atis facillime distinguitur.

60. **H. vagans** Harvey (in Hook. Ic. Pl. Rar. t. 24. 2.); caulis debilis vage pinnatus; folia subbifaria pantissima distantia, planiuscula, latiuscule *ovata obtuuscule acuta*, margine supra basin usque ad apicem nse *grossiuscule serrato*, nervo ante apicem evanido, llulis elongatis pellucidis mollibus, alaribus vix ventriosis laxioribus amplis indistinctis; theca *oblonga horiontalis*, operc. *longirostro obliquo.*

Patria. Nepal: Wallich.

Fructum non vidimus. *H. serrulato* simile.

Non satis nota.

61. **H. conchophyllum** Tayl. (Lond. Journ. of bot. 1848. p. 195.); monoicum; caulis decumbens irregulariter pinnatus, ramis complanatis; folia caulina laxe imbricata patentia subdisticha ovato-lanceolata sensim acuminata, nervo abrupto dimidiato, margine plano basi parum reflexo subdenticulato; perichaetia conspicua pallida; theca in ped. laevi anguste oblonga cernua, operc. rostrato thecam subaequante; perist. d. int. perforati, ciliis binis interpositis. †.

Patria. Monte Pichincha: W. Jameson, Maio 1847.

Fide auctoris ab *H. Megapolitano* proximo foliis angustioribus, haud cordatis sensim acuminatis pallidioribus patentioribus refugit.

62. **H. radiatum** Schw. (Suppl. I. II. p. 204.); caulis uncialis erectus unum alterumve ramum edens; folia bifariam imbricata remotiuscula fere disticha lanceolata planiuscula, toto ambitu acute serrata, flavescenti-viridia, nervo dimidiato concolore, tenuissime lineari-areolata; perich. lanceolato-acuminata longiora subdentata; theca in ped. subbiunciali erecto apice incurvo tortili ferrugineo pendula subaequalis ovato-cylindrica brunneo-fusca. †.

Isothecium radiatum Brid. II. p. 358.

Patria. Insula Bourbonis.

Cui affine?

††. *Pedunculus scaber.*

63. **H. scabrisetum** Schw. (Suppl. III II. 2. t. 281.); *monoicum;* caulis repens, vage ramosus, pallide virens lutescens; folia caulina *remotiuscula, vix distincte bifariam imbricata, lanceolato-acuminata angusta,* denticulata, caviuscula, margine erecto, nervo ad medium evanido, cellulis elongatis angustiusculis pellucidis; perich.

triplo longiora, ex ovato longissime acuminata brevinervia; theca in ped. breviusculo *scabro subinclinata oblonga parvula*, ore contracta, operc. *conico brevi obtuso;* perist. d. int. haud pertusi, ciliis singulis brevioribus interjectis. †.

Leskea remotifolia Hook. in litt. ad Schwägr.

Patria. Nepal.

β. Folia undulato-crispatula.

64. **H. acutifolium** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 553.); caulis prostratus robustiusculus, subcompressus lutescens vage pinnatim ramosus, ramis subtruncatis brevibus; folia caulina dense imbricata, sicca undulato-crispa, e basi parum impressa late ovato-acuminata, concava, subplicata, robusta longiuscula, margine latiuscule revoluto denticulato, nervo ultra medium evanido, cellulis elongatis pellucidis, alaribus vix conspicuis.

Cum ic. in Fl. antarct. I. p. 138. t. 60.

Patria. Insula Campbelli antarctica: Joseph Dalton Hooker in exped. antarct. 1839—1843. legit.

H. undulato habitu simile, sed foliis uninervibus primo adspectu differt.

II. *Folia binervia.*

A. *Folia acumine recto v. reflexo.*

a. *Theca erecta.*

65. **H. denticulatum** L. (Sp. Pl. p. 1588.); *monoicum;* laxe et late cespitosum prostratum, ramis latiuscule complanatis basi divisis longiusculis subattenuatis viridissimis splendentibus; folia caulina laxe conferta *plana, e basi caviuscula asymmetricâ* late ovata obtuse acuminata *subobliqua*, margine *basi hic illic paulisper revoluto*, apice obsolete denticulato v. integro, nervis latis brevibus inaequalibus, interdum subobsoletis, cellulis elongatis mollibus chlorophyllosis v. pellucidis plus minus laxiusculis, alaribus decurrentibus laxis; perich. caulinis simillima, interna convolutacea; theca in ped. stricto purpureo laevi

longo, plus minus *elongate cylindrica erecta vel demum cernua, ore majori constricto, pallide olivacea, dein fuscescens, leptodermis,* operc. conico acuto recto, annulo lato; perist. d. ext. *longi,* late lanceolati subulati *pallide lutei dense trabeculati,* int. aequilongi carinati albidi *haud vel vix perforati, ciliis paullo brevioribus* 2—3 *tenuissimis remote nodosis.*

Leskea denticulata Timm Fl. Megap. n. 803. — *Fissidens denticulatus* Willd. Prodr. Fl. Ber. n. 922. — *H. Stereodon denticulatus* Brid. II. p. 551. — H. denticulatum, pinnatum, pinnulis duplicibus recurvis. Dill. Musc. p. 266. t. 34. f. 5.

Leskea flaccida Brid. II. p. 308; forma humilis, foliis parvis obtusiusculis acuminatis. Ad rupes Americae septentrionalis: Torrey.

Hypnum Stereodon sylvaticus Brid. II. p. 550. — *Hypnum sylvaticum* L. Mant. Pl. II. p. 310. — *H. Stereodon cavifolius* Brid. II. p. 556. — Hypnum denticulatum, pinnulatum, pinnulis rarioribus simplicibus. Dill. Musc. p. 267. t. 34. f. 6. — Ex obs. Cl. Spruce in Musc. Pyr. No. 27. Ann. and. Mag. of Nat. Hist. 1849. infloresc. dioica ab *H. denticulato* differre dicitur; nos ipsi monoicum *semper observavimus.*

Hypnum obtusatum Wahlenb. Fl. Lapp. p. 371. — *H. obtusifolium* Brid. Mant. Musc. p. 153. — *H. Donianum* Sm. Fl. Brit. III. p. 1286 et Engl. Bot. t. 1446.

Platyhypnum laetum Schimp. in litteris! Perist. interni cilia nulla vel bina. Vestigia specierum synonymarum acuta invenire nequivimus; nam partes omnes valde variant.

Patria. In locis umbrosis humidis, ad terram et saxa, per Europam totam et Americam septentrionalem; ex insula antarctica Eremitae retulit J. D. Hooker. — *Ex hyeme usque ad aestatem et ultra fructificat.*

Ab *H. trichophoro* simillimo notis laudatis differt.

66. **H. trichophorum** Spruce (Musc. Pyr. No. 25.); *monoicum; H. denticulato* simile, sed densius cespitosum, ramis *anguste complanatis,* folia magis imbricata, late ovata, *acumine flexuoso tenui piliformi terminata, ubique profunde concava, implana, symmetrica,* margine plus minus revoluto integerrimo, cellulis angustissimis brevioribus; perich. late ovata vaginantia *sinuato-flexuosa reflexiuscula, multo tenerius et basi laxe reticulata, longe acuminata;* theca in ped. gracillimo purpureo erecta, *e*

collo longiusculo subclavate ovalis, fuscescens leptodermis, operc. conico; perist. albidi d. ext. *angusti articulato-trabeculati*, int. *perforati*, in membrana *brevissima* positi, ciliis *rudimentariis* binis.

Platyhypnum piliferum Schimp. in litt. — *H. trichophorum* Spruce in Musc. Pyr. No. 25. Ann. and Mag. of Nat. Hist. 1849. — *H. orthocarpon* Ångstr. Disp. Musc. Scand. 1842; nomen Hornschuchiano junius. — *Hypnum denticulatum* var. *Donianum* Hook. in Drumm. Musc. Amer. No. 165. — *Leskea pilifera* Sw. Hb. Spruce in Lond. Journ. of bot. 1846. p. 418.

Patria. Norvegia, Suecia, Lapponia et Finlandia, ubi haud raro viget; in Pyrenaeis: Spruce; in America sept., ubi in rupib. ad Portage River legit Drummond.

Species pulchella distinctissima.

67. **H. orthocarpum** Hsch. (Regensb. bot. Zeit. III. p. 520; s. diagnosi); *dioicum;* dense cespitosum erectum saepius *breviter dichotomum anguste compressum fragile, haud splendens*, laxifolium molle, *apice subcuspidato gemmaceo-clauso;* folia pallide viridia *sicca et madefacta erecto-appressa*, e basi angustiore *symmetricâ cochleariformi-ovata et concava, obtusa brevissime acuminata*, margine convexo subintegerrimo, nervis longiusculis sublatis *aequalibus* basi conflatis, cellulis longis laxis mollibus pellucidis pallide virentibus, alaribus laxis elongate quadratis decurrentibus; perich. convolutaceo-vaginantia distinctius acuminata tenuiora; theca in ped. elongato recto purpurascente laevi *valido molli* elongate cylindrica angusta erecta v. vix inclinata, ore coarctata, fuscescens leptodermis; perist. d. ext. *H. denticulati*, int. albidi.

Isothecium orthocarpum Brid. II. p. 387, nomine solo memoratum.

Patria. Chile, ad Talcahuano: Adalbert de Chamisso 1816.

Fructum imperfectum tantum vidimus. Species inter congeneres notis laudatis distinctissima pulchra, *H. denticulato* haud dissimile.

68. **H. subcompressum** C. Müll.; *dioicum;* longe prostratum vage ramosum, ramis *elongatis flaccidis fle-*

xuosis compressis luteo-viridibus angustis multis; folia caulina distichaceo-imbricata, *siccitate subinflectentia v. subhomomalla*, e basi angustiore ovato-acuminata, acumine brevi reflexo denticulato, profunde concava, margine basi sola subreflexo, nervis aequalibus latiusculis flavidis subbrevibus, cellulis anguste breviter linearibus virentibus, alaribus *permultis quadratis pellucidis intus granulosis perfecte entodontoideis;* perich. longius lanceolato-acuminata subvaginantia, basi laxe pellucide reticulata; theca in ped. mediocri purpureo laevi tenui *perfecte erecta haud arcuata anguste cylindracea*, badia.

Leskea subcompressa Br. et Sch. in Musc. Abyssin. Schimper. Coll. II. No. 581. b.

Patria. Abyssinia: W. Schimper.

Fructum imperfectum tantum vidimus. *Entodontibus* ex habitu et foliorum structura maxime similis, sed e peristomate rudimentario observato certe huc pertinens et *H. Haldaniano* simile.

69. **H. Haldanianum** Grev. (Ann. of the Lyc. of Nat. Hist. of New-York 1825. p. 275. t. 23.); *monoicum*; late cespitosum prostratum vage ramosum, ramis elongatis *breviter subpinnatis subcompressis saepius patentifoliis* laete viridibus v. lutescentibus angustis; folia caulina subdistichaceo-vel patenti-imbricata, late ovato-acuminata, acumine breviusculo recto v. reflexiusculo, concava, margine ubique erecto integerrimo, nervis plus minus distinctis tenuibus longiusculis v. brevioribus, cellulis angustissime linearibus pallidis, *basi interdum flavidis*, alaribus multis laxe quadratis pellucidis v. intus granulosis *v. flavescentibus ventricose impressis;* perich. multo latiora majora et *longissime reflexe filiformi-acuminata*; theca in ped. elongato valido purpureo laevi rigido *erecta anguste longiuscule cylindracea arcuata badia*, operc. *conico oblique rostrato arcte adhaerente, annulo nullo;* perist. d. ext. longe subulati lutei carnosi vix cristati, int. pertusi *aequilongi albidi rugulosi* in membrana valde reticulata positi, *ciliis vix brevioribus concoloribus et rugulosis singulis v. binis.*

Hypnum cylindricum Bruch in Rabenhorst. Deutschl. Krypt. Fl. II. p. 273! 1848. — *H. cupressiforme* var. Bals. et De Not. in Musc. Mediol. Exs. II. 1834. No. 29! — *H. Badense* A. Braun l. c.! — *H. pulchrum* Hook. in Drumm. Musc. Amer. n. 180! 1828. — *H. Cooleyanum* Spreng. 1833. fide Sullivant. — *H. curvirostrum* Brid. II. p. 482! 1827.

Patria. In Canada detexit Dr. Haldan; dein ad truncos arborum Canadae superioris legit Drummond; in monte Hosack reipubl. Massachusets in lignis putridis arborumque dejectarum cortice: Cooley; in insula Terre Neuve: La Pylaie; in sylvis montanis Americae foederatae, humum truncosque prostratos habitans e Sullivant haud infrequens reperitur. In locis similibus et ad terram Pyrenaeorum circa Bagnères de Bigorre, in sylvis editis siccioribus: Spruce, W. P. Sch. 1847. auctumno; prope Karlsruhe et Heidelberg Germaniae occidentalis: A. Braun, qui in solo humido limoso collegit; in Bavaria: Sendtner; in alpibus Pinzgoviae: Mielichhofer et Sauter fide Rabenhorst.; in alpib. Julicis, in Mogenza alt. 3—4000′: Sendtner 8. Aug. 1841. In sylvis della Merlata prope Mediolanum Italiae: De Notaris.

Notis cursive impressis species pulcherrima.

70. **H. nemorosum** Koch (in Brid. II. p. 422.); *monoicum;* late cespitosum, longe prostratum attenuate breviter pinnatum laete viride splendidulum firmum, ramis dense approximatis brevibus plus minus erecto-confertis compressis attenuatis; folia caulina dense appressa, e basi brevissima reflexâ *ovato-lanceolata, in acumen latiusculum vix vel semel tortum grosse serratum* producta, concava, margine erecto, *superne denticulato*, nervis breviusculis tenuibus, cellulis *brevibus angustis* virentibus, basi flavescentibus, alaribus superioribus paucissimis minutis incrassatis, inferiorib. crebrioribus quadratis, hyalinis v. subflavidis, teneris v. incrassatis, *planiusculis;* perich. *H. Haldaniani, sed denticulata;* theca brevior crassior, operculo *conico acuto recto;* perist. d. ext. robustiores magis cristati, int. *flavidi laeves.*

Hypnum subrectifolium Sulliv. (non Bridel!) in Musc. Alleg. No. 15!

Patria. In Germania cisrhenana prope Kaiserslautern ad terram in nemorosis detexit Koch; in Bavaria superiori ligno putrido adhaerens, in pineto catarractae vicino prope Schliersee et ad „Hohe Tanne prope Schlehdorf" m. Octobr. et Novembris: Sendtner. In jugis Iron Mountains dictis Virginiae et Carolinarum in ligno carioso Sullivant.

Ab *H. Haldaniano* proximo notis laudatis differt.

71. **H. affine** Hook. (Kunth. Synops. Pl. Aeq. p. 64) *monoicum;* decumbens prostratum vage pinnatum ramosum compressum lutescens, ramis remotiusculis subpatentibus attenuatis; *ramuli defoliati foliis spinaeformibus minutis numerosis scaberrimi spinosi;* folia caulina densa conferta erecta, concava, *ovato-lanceolata, in acumen strictiusculum latum planum spinuloso-serratum* producta margine basi sola parum reflexo, nervis obsoletis, cellulis pallidissimis angustissime linearibus, basi flavidis, alaribus *paucis quadratis pachydermibus flavidis parum impressis;* perich. erecta majora profunde concava et plicata, basi laxius et flavide reticulata; theca in ped. elongato purpureo laevi subvalido stricto suberecta cylindracea parum arcuata badia nitida exannulata (?), operc. conico acuminato recto; perist. robusti magni d. ext. parum cristati fuscescentes lati, int. aequilongi angustiusculi flavidi solidi, ciliis aequilongis capillaribus albidis binis.

Brid. II. p. 424. — Schwägr. Suppl. III. II. 2. t. 283.

Patria. In jugis Andium et in umbrosis montis Quindiu juxta la Quebrada de Toche, regione temperata, alt. 1050 hexapodum: Humboldt et Bonpland.

H. Haldaniano et *nemoroso* affine sed distinctissimum.

b. *Theca inclinata.*

a. Folia breviter acuminata.

†. *Folia undulata.*

72. **H. robustum** Hook. (in Drumm. Musc. Amer. No. 199.); *dioicum?* caulis repens, ramis robustissimis

elongatis decumbentibus *latissimis planissime compressis, ramulis obtusis, e viridi lutescentibus* subsimplicibus plus minus elongatis patentibus similibus inaequalibus irregulariter dendroideo-pinnatis; folia dense imbricata distichaceo-appressa, *distincte undulato-crispa et inferne longitudinaliter laeviter plicata, scariosa,* e basi *quam maxime late ovata margine maxime revolutâ late acuminata, acumine ligulato obtusato, supra basin usque ad apicem denticulato-truncatulum dentata,* margine erecto, nervis *latis longiusculis,* cellulis angustissimis *subincrassatis* viridibus, alaribus *vix ullis;* perich. reflexa albida late vaginantia inferne laxissime reticulata; theca in ped. crasso rigido ascendente purpurascente turgide et cernuo-cylindracea *breviuscula,* operc. *conico obtuso mammillato.*

Hypnum Stereodon robustus Brid. II. p. 635. — *H. robustum* Hook. Musc. Exot. t. 108. et Schw. Suppl. III. II. 1. tab. 261; species haec Menziesiana quoad icones foliis subsecundis differt. An alia species?

Patria. In plaga occidentali Americae septentrionalis: A. Menzies 1793; in terra tract. mont. Rocky Mountains, „on the large hill to the westward of the Height of Land: Drummond.

73. H. undulatum L. (Sp. Pl. p. 1589.); *dioicum;* late cespitosum prostratum, ramis elongatis *lycopodioideis latis robustis flaccidis compressis attenuatis sulphureo-viridibus subsimplicibus, humore turgescentibus* vagans; folia caulina polysticha, sed distichaceo-appressa, humore patula, *latissime ovata,* acumine obtuso vel tenui flexuoso brevi terminata, margine erecto, apice subdenticulato, *superne plus minus transversaliter undulata,* nervis inaequalibus longiusculis, cellulis elongatis angustiusculis, basi laxioribus, subpellucidis; perichaetia angusta, foliis vaginantibus longius acuminatis multo laxius et tenerius reticulatis, basi flavidis; theca in ped. longissimo ascendente tortili purpureo elongate turgide cylindracea cernua, siccitate ore majori constricta et striata, rufa, operc. cupulato, longe subulato obliquiusculo, annulo lato; perist. maximum, ext. subflavidum, intern. in membrana alta al-

bida aequilongum imperforatum, ciliis longis 3—4 tenuissimis remote articulatis.

Brid. II. p. 397. — *H. undatum* Schrank. Baiersche Fl. II. 480. — H. pennatum, undulatum, Lycopodii instar sparsum. Musc. p. 271. t. 36. f. 11. — *Leskea crispa* Schrank. Prim. Fl. Salisb. n. 835.

Patria. In locis umbrosis humidiusculis, praeprimis viarum cavarum vel ericetis tam planitierum quam montium sylvestrium totius fere Europae, nusquam communis sed raro fructificans. Ad Cap. Dissapointement Americae occident. lectum possidemus, quod sterile cum Europaea specie omnino convenit. — *Aestate.*

††. *Folia regularia.*

74. H. depressum Bruch. (Regensb. Bot. Zeit. 18[illegible] p. 763.); *monoicum;* depressum *tenellum latiuscule* [illegible] *planatum breviter et fastigiate ramosum* viridissimum, folia caulina disticha patentia laxiuscule imbricata, *angustiuscule ovata breviter acuminata, ubique subdenticulata* concava, margine erecto, nervis longiusculis, interdum obsoletis, cellulis *brevibus* angustis densis *viridissimis* utriculo primordiali serpentino repletis, *apicalibus multo minoribus, saepe incrassatis, alaribus vix ullis quadratis minutis granulosis;* perich. longe acuminata, latius vaginantia, tenera, denticulata; theca in ped. *breviusculo* declinata, *breviter turgide ovalis, ore constricta, pachydermis,* operc. conico acuto recto, annulata; perist. *H. denticulati,* sed brevius et ciliis int. *solitariis.*

Hypnum confertum ζ *depressum* Brid. II. p. 765. — *H. conferto* nervis binis jam differt.

Patria. Prope Bipontum detexit **Bruch**, in lapidibus vetustis umbrosis arcis Heidelbergensis ruinosae, inter fruticeta horti aulici Carlsruhiae, circa arcem Badenae, pr. Badenweiler: **A. Braun**, pr. Bayerbrunn circa Monachium: **Sendtner**, pr. Ratisbonam: **Fürnrohr**; ad rupes calcareas Pyrenäorum, Vallon de Serris: **Spruce**. — *Hyeme.*

Ab *H. denticulato* notis cursive impressis longe recedit.

75. **H. Langsdorfii** Hook. (in Kunth. Synops. Pl. Aeq. p. 62.); caulis repens ramosus; folia disticha planiuscula vato-lanceolata subacuminata enervia (?) *apice serrata;* ieca ovata *cernua*, operculo *longe rostrato.* †.

Brid. II. p. 391.

Patria. Brasilia, in lignis putridis ad ripam Orinoci, rope Maypure: Langsdorff in Hb. Swainson.

H. denticulato ex auctore simillimum, sed caracteribus laudatis distinctum.

76. **H. lucidum** Hook. et Wils. (Lond. Journ. of bot. 844. p. 554.); caulis ramosus humilis; folia imbricata recto-patentia ovato-acuminata apice attenuata integerrima margine reflexa, basi binervia; theca in ped. levi cernua ovato-oblonga. †.

Patria. Insula Eremitae ad Cap. Horn: J. D. Hooker.

Ex auct. *H. Seligeri* simile, sed charactere ad *H. dnatum* Hdw. propius accedens; ab hocce differt: foliis accidis, margine apice reflexis ut in *H. ruguloso.*

β. Folia longe acuminata.

77. **H. Seligeri** C. Müll.; *monoicum; H. denticulato* mile, ramis *arcuato-flexuosis, apice saepe maxime curtis*, viridibus *v. stramineis;* folia caulina laxe imbricata tula, distichacea, *ramea subhomomalla, angustiuscule nceolata, in subulam longam subflexuosam producta,* viuscula, basi plerumque constricta plus minus implana, argine erecto, superne denticulato, nervis tenuibus inqualibus breviusculis, cellulis ubique aequalibus angulis viridibus densis; perich. latiora vaginantia robustius ticulata, basi fuscescentia; theca in ped. longiusculo rpurascente laevi arcuato-cylindrica inclinata *pallide sca, dein subaurantiaca*, late annulata, operc. *cupulato ammillato obtuso;* perist. *H. denticulati.*

Hypnum Silesianum P. B. Prodr. p. 70. (1805.) — *H. Silesiam* al. — *H.* (*Stereodon*) *Silesiacum* Brid. II. p. 554. — *Leskea ligeri* Brid. Musc. Rec. II. II. p. 47. (1801.). — *H. planifolium* id. II. p. 411. e spec. auth. Hb. Bridelii sterilibus forma minor vitur.

Patria. Ad truncos arborum putridos totius Europae, in sylvis montium humiliorum atque editor — *Vere.*

Flores masculi solitarii.

78. **H. deplanatum** Schimp. (in Sulliv. Musc. Al No. 50.); *dioicum; H. depresso* simillimum, sed la complanatum, viridissimum, vel fuscescens, fertile te lum, sterile longius pertractum; folia caulina *majora basi late truncata late lanceolata, longiuscule acumin* nervis *brevissimis obsoletis,* cellulis *ubique elongatis, u culo primordiali carentibus;* perich. laxissime reticu albida, margine *maxime inaequaliter grosse ciliato-d tato;* theca in ped. ascendente purpureo breviusculo clinata *gibboso-cylindracea* brevis ore majusculo cons cto, atro-brunnescens; perist. *H. denticulati*, sed mi d. int. imperforati, ciliis binis brevioribus.

Patria. In umbrosioribus ad saxa, terram arboru que truncos, a Canada usque ad Ludoviciam, sat frequen sed rarissime fructificans: Sullivant.

c. *Theca nutans.*

79. **H. elegans** Hook. (Musc. Exot. t. 9.); *dioicum* procumbens *tenellum angustiuscule* complanatum laete ride, ramis *brevibus* inaequalibus; folia caulina disti densa *anguste ovato-lanceolata integerrima* concav liquiuscula, margine altero parum involuto, nervis bus *tenuibus vix conspicuis*, cellulis linearibus stri mibus basi laxioribus, alaribus obsoletis pellucidis bas lares aemulantibus; perich. *ex ovato longe cuspidata* theca in ped. *brevi* rufo apice inflexo, punctis imprim sicco statu scabro *pendula* oblonga laevis aequalis badia, operc. conico acuminato brevi; perist. d. int. ciliis *longissimis tribus capillaribus* interpositis. †.

Schw. Suppl. III. II. 2. t. 282. — *Isothecium elegans* Brid. II. p. 356.

Patria. In plaga occidentali Americae borealis, Nootka Sound: A. Menzies.

Ab *H. denticulato* notis expressis differt.

80. **H. chlorophyllum** Hsch. (Fl. Bras. I. p. 89.); *monoicum;* prostratum appressum radicans parce divisum pallide viride nitidum, planissimum; folia caulina distichaceo-imbricata, caviuscula, e basi *reflexe constricta anguste oblongo-acuminata obtusiuscula,* margine erecto integerrimo, nervis brevissimis inaequalibus, cellulis elongatis laxiusculis pellucidis, *alaribus ad latus unicum permultis laxe quadratis pellucidis vel fuscescentibus;* perich. e basi late ovata vaginante laxe reticulata anguste acuminata hic illic grosse dentata; theca in ped. breviusculo purpureo laevi nutans brevis urceolata, operc. conico oblique subulato; perist. *H. denticulati,* sed minus, d. int. externis breviores imperforati, ciliis brevibus solitariis.

Hypnum Lindenbergii Hmp. in sched.

Patria. Brasilia, Minas Geraës, ad terram: Martius et Hb. Lindenberg.; insula Trinidad Antillarum, ad St. Anne 18. Decbr. 1847 fertile, Arima: Crüger.

Cellulis alaribus unilateralibus maxime evolutis primo momento sp. distinguenda; *Lepidopilis* aemulans. Flos masc. fem. vicinus turgidus, fol. late ovatis, superne sinuate emarginatis veluti grosse dentatis, acumine brevi recto terminatis, laxe areolatis; anth. eparaphysatis multis valde turgidis.

Incerta.

1. **H. concavum** Hook. (in Kunth. Synops. Pl. Aeq. p. 63.); caulis repens flaccidus compressus ramosus, ramis compressis; folia undique imbricata concava ovata obtusiuscula integerrima enervia, pallide viridia, mollia; theca ovata cernua. †.

Brid. II. p. 501.

Patria. In sylvis opacis densis, ad ripam fluminis Negro, prope San Carlos, locis temperatis: Humboldt et Bonpland.

B. *Folia mucrone reflexo.*

81. **H. Auberti** Schw. (Suppl. I. II. p. 200. t. 88.); *dioicum;* procumbens elongatum flaccidum lutescens nitidissimum, ramis inaequalibus latiuscule et planissime complanatis simplicibus remotis v. fasciculatis irregulariter ramosum; folia caulina quadrifaria, perfecte distiche imbricata, angustissime cymbiformi-oblonga obtusa, acumine tenuissimo piliformi reflexo-flexuoso, margine erecto integerrimo, nervis brevissimis vix conspicuis, cellulis maxime angustissimis in membranam pallide viridem veluti homogeneam conflatis; perich. ovato-acuminata, interiora oblongo-lanceolata; theca in ped. solitario subunciali erecto rufescente anguste subcylindrica, ad horizontem vergens, basi inaequalis; perist. internum ciliis binis tenuissimis.

H. Stereodon Auberti Brid. II. p. 556. — *Leskea nitens* ej. Sp. Musc. II. p. 50.

Patria. Insula Franciae: Aubert du Petit-Thouars. Insula Bourbonis, in planitie des Chicots et in Piton des neiges: Bory St. Vincent.

82. **H. mucronatum** C. Müll.; *dioicum; H. Auberti simillimum*, sed *multo angustius complanatum, rigidum robustius, densius foliosum, minus planum;* folia caulina *late* oblonga, apice *mucrone brevissimo* reflexo terminata, perich. e basi vaginante longe lanceolato-acuminata reflexiuscula, basi laxius reticulata; theca in ped. rigido crassiusculo sublongo rubro subcernuo-horizontalis inaequaliter obovato-cylindracea leptodermis, operculo conico obtuso, annulo simplici; perist. d. ext. late lanceolati pallidi, linea media tenuissima exarati, interni hyalini, ciliis tenerrimis binis vix brevioribus interpositis.

Patria. Prom. b. spei, ad Haugklip: Mundt et Maire.

83. **H. Phyllogonium** C. Müll.; *H. Auberti* simillimum, sed *luteo-viride, multo densius foliosum*, folia *latiora, basi magis dilatata, apice brevius pilifera.*

Phyllogonium callichroum Mont. Ann. d. sc. nat. 1845. IV. p. 87.

Patria. Chile: C. Gay sterile legit.

84. **H. politum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 553.); *tenuissime complanatum; saepe subfiliforme* sed distincte compressum; folia imbricata, *angustissime oblonga, in acumen longum crinitum flexuosum sensim producta;* perich. latiora obtusius acuminata; theca *oblonga* suberecta v. horizontalis; perist. *H. mucronati.*

Cum ic. in Fl. Antarct. II. p. 416. t. 154. f. 2.

Patria. Insula Eremitae ad Cap. Horn, fertile; in insula Kerguelen sterile legit J. D. Hooker.

Subsectio III. **Sigmatella.** Caulis angustus pinnatim divisus; folia lineari-areolata, *papillis obtecta*, plerumque binervia.

A. *Folia uninervia.*

85. **H. graminicolor** Brid. (Sp. Musc. II. p. 254.); caulis repens, ramis humilibus gracilibus laxifoliis teneris graminicoloribus, apice minute gemmaceo terminatis, indistincte compressis, parce divisis; folia caulina laxe conferta, anguste oblonga lanceolato-acuminata, planiuscula, acumine semel subtorto, margine erecto ubique valde serrulato, nervo tenui ultra medium producto unico, cellulis elongatis angustis densis lutescentibus, ob papillas elevatas sparsas valde tuberculosis, alaribus vix ullis minutissime quadratis.

Brid. II. p. 455.

Patria. Pensylvania: Mühlenberg.

E notis cursive impressis species parvula tenella distinctissima, fertilis nondum observata. Ex insula Terre Neuve, ubi ex Bridel vigere dicitur, in ejus herbario non vidimus.

B. *Folia binervia.*

a. *Foliorum cellulae papillis ubique dispositis obscurae.*

86. **H. truncatulum** C. Müll.; hermaphroditum; repens prostratum pinnatam tenuicaule; ramis lurido-viridibus v. lutescentibus tenuibus brevibus simplicibus attenuatis subaequalibus compressis; folia caulina densiuscule

imbricata, brevia, latiuscule oblonga ligulata truncatulo-obtusata, caviuscula, margine erecto supra basin dentibus ob papillas saepe duplicatis valde serrulato, nervis tenuissimis flavidis brevibus, cellulis angustissime linearibus dorso tenuissime et valde papillatis; perich. acuminata erose truncatula subciliate serrulata, crispabilia; theca in ped. elongato laevi rigido rubro subinclinata brevis minuta, turgide ovalis aequalis urceolata v. ore constricta, operc. conico acuminato recto, calyptra glabra; peristomii d. ext. late lanceolati, tenuissime subulati, linea media tenuissima exarati, int. ciliis binis laevibus connatis pellucidis.

Patria. Peru: Pöppig.

Hookeriae pallidae et affinibus *Callicostellis* structura foliorum haud dissimile, habitu *H. Zollingeriano* affinius.

b. *Foliorum cellulae seriatim punctulatae.*

87. **H. planum** Brid. (Sp. Musc. II. p. 97.); *monoicum;* late cespitosum, *longissime repens prostratum anguste complanatum irregulariter pinnatum* laete viride; folia caulina laxe imbricata, *e basi brevissima maxime constricta late ovato-acuminata*, inferne concava, superne plus minus planiuscula v. concava, margine erecto *subcrenulato*, nervis obsoletis, cellulis angustissimis conflatis pallide viridibus seriatim punctulatis, basi saepe flavidis, *alaribus superioribus paucis quadratis granulosis, inferioribus parvulis vesiculaeformibus pellucidis v. chryseis;* perich. vaginantia magis acuminata, magis papillosa, basi laevia laxe reticulata pellucida, superne eroso-denticulata; theca in ped. *longissimo flavido subpurpurascente laevi* flexuoso rigido tenui *inclinata parva brevis subcernuo-ovalis, ore constricta, brevicolla* fuscidula, exannulata, operc. *turgide conico aurantiaco;* perist. parvi d. ext. lutei, int. flavidi valde compressi aequilongi solidi, ciliis singulis albidis.

Brid. Br. univ. II. p. 394. — Schw. Suppl. III. II. 2. t. 280. pedunculo brevius delineato. — *Leskea* (*Omalia*) *cymbifolia* Brid. II. p. 333! — *L. subpinnata* Brid. II. p. 287 ex parte, specimina in *Pterocarpo Draconis* insulae Guadeloupe lecta!

β. acuminulatum; laxius foliosum; folia ovata obtuiuscula breviter acuminata, sordide viridia. *H. acuminutum* Hsch. Fl. Bras. I. p. 76! — *H. Auberti* herbar. nonnullor.

γ. flavescens; flavescens, folia ovata breviter acumiata, superne plica unica subtorta, v. margine plus mius involutaceo.

Patria. Hispaniola: Poiteau; Porto Ricco: Berero; Surinam, ad truncos arborum pr. Mariepaston in ylvis primaevis, Majo, ad lapides locis humidis pr. Paraáribo, Julio 1844: Kegel; Maynas Peruviae: Pöppig, oll. No. 19. 1831; Var. *β.* in Brasilia ad flumina Amazoum, Teffé et Japura, e. gr. ad oppidum Ega, ubi Marius Decembri et Pöppig 1831 legerunt. Var. *γ.* in sula Trinitatis Antillarum prope St. Joseph legit Crüer 14. Febr. 1848.

Notis illustratis facile discernibile; vulgare.

88. **H. instratum** Brid. (II. p. 394.); *H. plano* siillimum, lutescens, folia caulina *anguste lanceolata* breiter acuminata, concava, *grossius dentata, robustius nctata,* cellulis alaribus *superioribus vix ullis, inferiobus minutis vesiculaeformibus* subflavidis; perich. lonus acuminata; theca in ped. *brevi* crassiore major.

Hypnum planum β. instratum Schw. Suppl. III. II. 2. t. 280.

Patria. Insula Radack Moluccensis: Gaudichaud.

Ex obs. *Schwägricheni* hermaphroditum v. dioicum se dicitur.

89. **H. floribundum** C. Müll.; caulis *elongatus filirmis flexuosus* repens *subpinnatim ramosus flaccidissius,* ramis compressis laxissime foliosis teneris viridibus lutescentibus brevibus; folia caulina *subquadrifaria, d oculo nudo veluti bifariam imbricata, patentissima, basi parum coarctata subcordata latiore sensim lanceoto-acuminata,* concava, margine infima basi reflexo, *bique minute serrulato,* nervo tenuissimo dimidiato, cellis angustissime linearibus, *ob papillas tenerrimas dense riatas obscuris scaberrimis, alaribus paucis minute uadratis;* theca *breviter pedunculata* erecta ovata, ore

contracta, dein subcylindrica, operc. convexo oblique rostrato, calyptra *sparse pilosa*.

Leskea floribunda Dz. et Molkb. Ann. d. sc. nat. 1844. 2. p. 310.

Patria. Java, unde auctores et Miquel habuerunt; ad pedem m. Merapi Sept. sterile legit quoque Junghuhn; praeterea in Sumatra observatum est.

E notis datis distinctissimum.

90. **H. Nepalense** Schw. (Suppl. III. I. 2. t. 226.); *monoicum;* laxe cespitosum decumbens intertextum longe repens, tenellum, ramis *dense approximatis deplanatis teneris* luteo-viridibus subsimplicissimis brevibus pinnatum; folia caulina laxe conferta *e basi brevissima valde constrictâ latiuscule ovata breviter acuminata,* margine erecto *ubique subserrulato*, nervis obsoletis, cellulis subconflatis pallide viridibus, *basi vix flavescentibus, tenuissime seriatim punctulatis, alaribus pellucidis parvis ternis turgidis vesiculaeformibus;* perich. vaginantia longe tenuiter acuminata denticulata, basi laxius reticulata pellucida; thecae in ped. *longissimis* purpureis *laevibus rigidis tenuibus creberrimis* horizontales cernuo-ovales breviter conico-operculatae brevicollae minutae brunnescentes; perist. minuti d. ext. latere ciliati flavidi, ciliis perist. int. singulis.

Hypnum punctulatum Harvey in Lond. Journ. of bot. 1840. p. 18. et ic. in Hook. Ic. Pl. Rar. I. t. 23. f. 10!

Patria. Nepal: Wallich.

Notis cursive impressis facile cognoscitur.

91. **H. pseudo-amoenum** Bél. (Voy. dans l'Ind. II. p. 87.); *monoicum; tenerrimum tenuissimum* longe repens decumbens pallidum, vage ramosum, ramis *brevissimis subdeplanatis* irregulariter pinnatulum; folia caulina *laxe conferta patentissima tenuissima,* e basi parum constricta *angustissime elongate lanceolato-acuminata curvula,* valde concava, margine erecto v. plus minus *involutaceo ubique tenerrime et remote denticulato,* nervis obsoletis, cellulis longiusculis angustissime linearibus pallidis *tenuissime* seriatim punctulatis, basi subflavidis, ala-

ribus *minutissimis pellucidis vix vesiculaeformibus;* perich. latius vaginantia longius acuminata subrecta, basi laxius reticulata, laevia; theca in ped. elongato *tenerrimo* laevi purpurascente horizontalis *minutissime ovalis*, subannulata; operculo *turgide conico acuto brevi recto;* perist. *H. Borbonici.*

Patria. Insula Bourbonis, inter *H. Borbonicum* legit Bélanger.

Notis illustratis facile cognoscitur.

c. *Foliorum cellulae papillis sparsis praeditae.*

α. Cellulae alares vix ullae quadratae.

92. H. Cubense C. Müll.; *monoicum; H. pseudoamoeno* simillimum, sed folia caulina *e basi latiuscule cordate ovatâ sensim longiuscule acuminata strictiuscula*, basi concava, margine erecto ubique tenuiter subdenticulato, nervis *distinctis breviusculis*, cellulis *sparse tenuiter papillosis, ubique pallidis, alaribus vix ullis quam maxime minutis quadratis;* perich. *angustissime vaginantia* longe filiformi-acuminata subintegerrima laevia; theca in ped. elongato tenerrimo purpureo laevi horizontalis minutissime cylindraceo-oblonga macrostoma brevicolla, sicca nutans angustissime obovata ore maximo constricta rufa, operc. conico acuto brevi recto; annulo distincto; perist. minuti d. ext. flavidi, linea media tenuissima exarati, int. lutescentes aequilongi, ciliis singulis brevioribus *basi cellulosis* albidis.

Leskea adnata Schw. (haud Mchx.!) in Pöppig Musc. Cubens.

Patria. Insula Cuba: Pöppig, dein Döring 1842. In truncis vetustis sylvarum viget.

A praecedentibus congeneribus ramis tenerrimis jam distat.

93. H. elegantulum Hook. (Musc. Exot. t. 84.); *dioicum;* latissime cespitulosum *rigidissimum* repens *vage subpinnate ramosum* decumbens latiuscule compressum lutescens, ditissime fructificans; folia caulina *dense conferta squarrosula* erecto-patentia, e basi *late cordatâ*

hastato-lanceolata brevia, caviuscula, margine erecto basin infimam *introrsum impressam, cellulis alaribus* [illegible] *cissimis minutissime quadratis praeditam*, paulisper flexo ubique denticulato, nervis brevibus pallidis, cellulis brevibus subconflatis *ubique pallidis*, papillis sparsis *nerrimis praeditis;* perich. squarrosa, late vaginante longe latiuscule subreflexe acuminata, vix denticulata basi laxius reticulata inferne subflavida; theca in pe *elongato rigidissimo* laevi purpurascente *subinclinat* sicca magis pendula, *oblongo-cylindracea subarcuat* ore parum constricta, fuscidula, anguste annulata, oper conico oblique rostellato brevi aurantiaco; perist. *longi simi* d. ext. *angusti subulati flavidi*, int. aequilongi *subulam tenerrimam albidam longam producti* lutescen vix perforati, ciliis binis capillaribus longis hyalinis; ca lyptra *pilis erectis hirta.*

Brid. II. p. 411. — *H. filidens* C. Müll. Bot. Zeit. 1844. p. 7 — *H. erythrodontium* C. Müll. l. c. theca robustiore breviore ri gida. — *H. trichomitrium* Hmp. in litt.

Patria. In valle di Aragua Venezuelae terrestre prim legerunt Humboldt et Bonpland; Mexico: Leibold Brasilia, monte Corcovado et Serra dos Orgaòs: Gard ner No. 115; in sylvis flum. Amazonum: Sellow; i sylvis insulae St. Catharinae ad coloniam Germanica prope flumen Itajahi, Oct. Novbr. 1846: Pabst.

In speciminibus Itajahiensibus calyptram lamell scabram, pilis igitur obsoletis praeditam et thecam boso-ovalem observavimus. Speciem propriam ob has hasce leves non putamus.

94. **H. reptans** Sw. (Fl. Ind. Occ. III. p. 1819) *monoicum;* late cespitosum maxime vage ramosum, ramis subfasciculatis *plumulose foliosis parum compressis pal lide luteis v. viridibus brevibus et longiusculis curvul remotiusculis rigidis;* folia caulina laxe imbricata, e basi maxime impresso-coarctata, cellulis alaribus paucissimis minutis quadratis praeditâ *latiuscule lanceolata* strictius cula, subcarinate concava, margine erecto, ad infimam basin solam impressam parum reflexo, denticulato, nervis

longiusculis pallidis, cellulis viridibus v. pallidis, papillis vix conspicuis valde sparsis instructis; perich. subsquarrosa, e basi late vaginante laxius reticulata longe reflexe acuminata subdenticulata; theca in ped. elongato crassiusculo purpurascente laevi nutans ovata majuscula badia annulata, ore coarctata, operc. breviter rostrato; perist. robusti d. ext. lutei longissimi lati, int. flavidi perforati, ciliis binis; calyptra *laevissima.*

Leskea pallida Schw. Suppl. III. II. 2. t. 291. — *Isothecium pallidum* Brid. II. p. 386. — *Hypnum pallidum* Hook. in Kunth Synops. Pl. Aeq. I. p. 63. — *H. pallescens* Arnott in Brid. l. c. — *H. andicolum* Hook. Musc. Exot. t. 83; *Leskea andicola* Brid. II. p. 297. — *H. reptans* Sw. Fl. Ind. Occ. III. p. 1819 e spec. authent. — Hedwig Sp. Musc. p. 265. t. 68. — Brid. II. p. 448.

Patria. In crepidinibus Andium inter Tulcam et Quito Peruviae ad terram: Humboldt et Bonpland. Venezuela, prov. Caracas: Moritz; Galipan: Karsten; Brasilia, in insula Stae Catharinae, in sylvis flum. Itajahi, ad coloniam Germanicam, Oct. et Nov. 1846: Pabst in societate *H. elegantuli* formam magis viridem legit; ex insula Jamaica primus retulit Swartz. Inter regiones orbis novi aequinoctiales late distributa videtur.

Ab *H. elegantulo* proximo notis cursive impressis differt.

95. **H. thelistegum** C. Müll.; *monoicum;* longe repens procumbens *valde compressum tenerum,* ramis brevibus *flaccidis laete viridibus subpinnatum;* folia caulina *subdistichaceo-plumulosa* laxe patentia, *latiuscule lanceolato-acuminata, acumine longiusculo rectiusculo v. obliquo,* caviuscula, margine ubique erecto *vel infima basi vix impresso,* cellulis alaribus paucissimis quadratis praedito, ubique parce subdenticulato, nervis et cellulis *H. elegantuli;* perich. *tenera longe filiformi-acuminata flexuosa haud squarrosa, pallidissima;* theca in ped. *tenerrimo* purpurascente laevi nutans, *minute sphaerico-ovalis,* deoperculata ore valde constricta urceolata, badia, annulata, operc. *hemisphaerico obtuso breviter mammillato;* calyptra laevissima; perist. *minuti* d. ext. lutei intus vix

cristati, int. flavidi aequilongi solidi, ciliis 1—3 albidis vix brevioribus.

Hypnum reptans Hsch. in Musc. Mexic. a Deppe et Schiede lectis No. 1094 huc revocandum est.

Patria. Insula St. Catharinae Brasiliae, ubi locis humosis prope Destero mensi Martii 1847. legit Pabst. Mexico, Mirantha: Deppe et Schiede.

Caracteribus explicatis ab *H. reptante* proximo longe differt.

96. **H. diminutivum** Hmp. (Linn. XX. p. 86.); *monoicum; pusillum;* caulis repens, ramis *brevissimis* decumbentibus viridissimis pinnulatus; folia caulina dense bifariam plumulose imbricata, patentia, parvula, *cordato-ovata acuminata,* vix denticulata, concava, *brevissime bi-nervia,* dorso tenerrime papillosa, margine erecta, e cellulis brevibus densissimis virentibus et alaribus minutissime quadratis paucis chlorophyllosis parum impressis areolata; perich. e basi latius vaginante longiuscule *stricte* subulata; theca in ped. *breviusculo* laevi flavido horizontalis, minute ovalis, operc. *conico brevi obtuso;* peris. *parvi* d. int. ciliis solitariis interjectis.

Patria. Venezuela, Caracas ad lignum putridum. Moritz. No. 20.

Ab *H. elegantulo* affini statura exigua, ab *H. reptante* notis laudatis, ab *H. thelistego* foliis caulinis cordato-ovatis breviter acuminatis, perich. breviter subulatis, thecae forma et operculo laevi jam longe recedit.

97. **H. Fabronia** Hook. (Lond. Journ. of bot. 1843. 2. p. 17.); *dioicum;* humile prostratum laxe cespitulosum gracile, ramis brevissimis irregulariter dispositis rigidis subcompressis tenuibus lutescentibus subpinnatum; folia caulina dense imbricata *fabronioidea brevia ovato-lanceolata breviter acuminata stricta,* caviuscula, dorso tenerrime papillosa, margine *ubique erecto* et cellulis marginalibus parum prominentibus crenulate denticulato, nervis brevibus, cellulis brevibus angustis distinctis lutescentibus, alaribus parvis *quadratis planis pellucidis vel intus*

vix granulosis submultis; perich. parum longius acuminata, magis denticulata et basi laxius reticulata; theca in ped. brevi purpurascente laevi suberecta ovalis parvula exannulata leptodermis fuscidula, operc. conico oblique rostrato; perist. d. ext. angusti tenues longi lutei leviter trabeculati, int. aequilongi angusti subpertusi, ciliis *rudimentariisb revissime conicis singulis* interpositis.

Helicodontium Fabronia Schw. Suppl. III. II. 2. t. 294. — *Leskea Fabronia* Hook. l. c.

Patria. Nepal: Wallich.

H. elegantulo formis gracilioribus haud dissimile.

98. **H. fabroniaefolium** C. Müll.; *H. Fabroniae* simillimum, sed rami *virescentes* parum compressi; folia *elliptico-areolata chlorophyllosa, latius ovata et brevius acuminata, profunde concava;* theca perfecte erecta, exannulata, operculum et peristom. *H. Fabroniae.*

Leskea denticulata Sulliv. Musc. Allegh. No. 62.

Patria. Ad arbores in excelso Balsam Mountain dicto Carolinae superioris: Sullivant.

99. **H. gracilescens** C. Müll.; caulis ramosus, ramis erectis *gracillimis* apice homomallis; folia caulina laxiuscule imbricata, e basi *angustiore cymbiformi-oblonga obtusa subacuta, parva,* margine ubique erecto et minutissime densissime crenulato, *sublaevia,* nervis binis brevissimis obsoletis, cellulis *minutis ellipticis incrassatis pallidis, basi subflavidis* alaribus *minutissime quadratis incrassatis paucis;* perich. squarrosa.

H. gracile Hook. et Wils. Lond. Journ. of bot. 1844. p. 553 et Fl. Antarct. I. p. 140. Nomen ob synonymum Br. et Sch. mutandum. — *H. micans* Hook. et Wils. Fl. Antarct. II. p. 421 var. foliis secundis laevioribus huc pertinere videtur.

Patria. Insulae Aucklandi: J. D. Hooker sterile legit.

100. **H. prostratum** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 309.); *dioicum?* caulis elongatus *filiformis* repens vage ramosus, ramis prostratis flaccidis subsimplicibus *gracillimis* attenuatis vix compressis; folia caulina

laxe disposita erecta, *e basi regulari haud impressâ breviter oblongâ obtusiusculo-lanceolata*, concava, firma, margine erecto, superne serrulato, nervis brevibus subdistinctis, cellulis brevibus densissimis conflatis pallide viridibus tenerrime papillosis, alaribus paucis minutissime quadratis pellucidis planis; perich. dense imbricata lanceolata acuminata subserrulata; theca horizontalis v. nutans incurva ovato-oblonga, operculo convexo-rostellato, rostello curvato obtuso.

Patria. Java.

Notis laudatis jam a congeneribus refugit et *H. reptanti* affine. Fructum non vidimus.

β. Cellulae alares flavidae vesiculaeformes.

101. **H. scaberulum** Mont. (Lond. Journ. of bot. 1844. p. 632.); *monoicum;* caulis tenuissimus *maxime laxifolius*, decumbens parce vage ramosus, ramis apice *incurvis* brevibus viridibus v. lutescentibus *gracilibus;* folia caulina *remote imbricata falcato-secunda*, tenera, concava, latiuscule lanceolato-acuminata, apice subserrulato, margine erecto, cellulis brevibus valde punctulato-scabris, basi flavidis, alaribus magnis turgidis maxime hyalinis; perich. e basi late vaginante laxius reticulatâ subrecte acuminata, superne magis serrulata; theca in ped. breviusculo *tenerrimo ubique scaberrimo* purpureo horizontalis subpendula urceolata parva brunnea (annulata?), operc. longissime aciculari recto v. obliquo; perist. d. ext. tenuissime subulati rubiginosi, int. aequilongi pertusi, ciliis singulis interjectis.

Hypnum scaberulum Mont. in Ann. d. sc. nat. 1845. 4. p. 92. t. 5. f. 2. — *H. hamatum* Dz. et Molkb. Ann. d. sc. nat. 1844. 2. p. 307!

Patria. Java: Hb. Montagn. et Lugd. Batavorum; Borneo: Hb. Lugd. Bat.

Notis cursive impressis facile distinguitur.

102. **H. papillosum** Hsch. (Fl. Bras. I. p. 82. t. 4.); *dioicum? pusillum cespitosum subcompressum lutescens v.*

virescens parce breviter ramosum; folia caulina erecto-patentia, interdum subhomomalla, laxe conferta, *latiuscule lanceolata, in acumen strictiusculum v. subtortum latiusculum producta,* concava, margine *erecto subcrenulato,* nervis obsoletis, cellulis pallide lutescentibus subconflatis *verrucoso-papillosis,* basi flavidis, alaribus *maximis turgidissimis amoene chryseis;* perich. subvaginata lanceolato-subulata, *interiora argute serrata,* laxius reticulata; theca in ped. *brevi laevi* purpurascente tenuissimo nutans minute ovalis brunnea (exannulata?), operc. hemisphaerico longe flexuose aciculari; perist. minuti d. ext. lutei, int. aequilongi solidi lutei, ciliis capillaribus interpositis.

H. spirate C. Müll. Linnaea XXI. p. 200.

Patria. Brasilia, in truncis demortuis sylvarum antiquissimarum prope flum. Paquaquer, Januar. c. fr. deoperculatis: Beyrich; in prov. Minarum, Leucobryo Martiano intermixtum legit m. Maji Martius; Surinam inter *H. subsimplex:* Weigelt.

103. **H. papillatum** Harv. (Lond. Journ. of bot. 1840. 2. p. 18.); *monoicum?* longe repens *tenuissimum* irregulariter pinnatum lutescens; folia caulina distichaceo-imbricata, e basi brevissima *maxime* constrictâ latiuscule ovata, *acumine longo tenuiusculo subflexuoso stricto terminata,* concava, margine erecto *ubique eroso-denticulato,* nervis obsoletis, cellulis brevibus ellipticis *subincrassatis papilla unica diaphana humili praeditis* pallidis, *basi flavidulis,* alaribus ternis parvulis vesiculaeformibus *flavidis;* theca in ped. *breviusculo* ovata horizontalis.

C. ic. in Hook. Ic. Pl. Rar. I. t. 23. f. 8.

Patria. Nepal: Wallich.

Fructum non vidimus. Ab *H. Nepalensi* haud dissimili caracteribus designatis longe differt.

104. **H. stissophyllum** Hmp. (in litt.); *monoicum; H. plano β. acuminulato* simillimum, viride; folia caulina *e basi brevi constrictâ elliptico-lanceolata breviter acuminata,* valde concava, margine ubique erecto ad acumen implanum eroso-denticulato, nervis obsoletis, cellu-

lis angustissime linearibus sordide pallide viridibus ter papillosis, basi flavidis, alaribus majusculis pallidis diis ternis; perich. longe acuminata tenuia, denticulata theca in ped. brevi purpureo, apice curvato tuberculo *valde nutans quam maxime minuta angustissime cylindrico-obovata vix conspicua subasperula* badia (ambulata?), operc. conico *longissimo aciculari thecam* superante flexuoso.

Patria. Java, in tumulis Baduorum.

Peristomium speciei hujusce tenellae et distinctissimae nobis haud visum.

105. **H. microcladum** Dz. et Molkb. (Ann. d. nat. 1844. 2. p. 308.); *monoicum?* repens subpinnatim ramosum, ramis *abbreviatis* simplicibus *erectiusculis* approximatis subattenuatis *vix compressis*, tenellum lutescens, folia caulina *dense imbricata* erecto-patula, *e basi* ... *constricta sed brevi angustâ anguste lanceolato-acuminata* valde concava, margine erecto ubique subdenticulato, nervis obsoletis, cellulis *longioribus* papilla ... *magis elevata acuta* praeditis, basi flavidis, alaribus ... turgidis prominentibus 2—3 *intense fusco-aureis;* theca in ped. breviusculo inclinata oblonga v. cylindrica, operc. conico-subulato obliquo.

Patria. Borneo: Korthals.

Fructum non vidimus. Notis designatis ab *H. papillato* differt.

Incertae sedis.

106. **H. acrorrhizon** Hsch. (Fl. Bras. I. p. 75.); *monoicum;* caules et rami erecti rigidi, apice descendentes et radicantes, amoene virides, *bipinnati*, ramulis parum recurvatis; folia caulina remotiora *subdisticha* erecto-patentia, late cordato-acuminata, serrulata, caviuscula, laxiuscule reticulata, ramea ovato-lanceolata acuta argute serrata; perich. interiora e basi latiore concavâ longissime subulata, pellucida, intima breviora, omnia apicem versus remote et obscure serrulata enervia (?) laxius reticulata;

ıeca in ped. tortili *laevi* apice incrassato et parum in-ırvato, inferne purpurascente nutans, minute obovata revis aequalis fusca rugosa, operc. dimidio breviori; pe-st. d. ext. inferne ferruginei, superne denticulati hya-ni, int. parum breviores solidi, ciliis tribus brevioribus ıbulatis nodosiuscule articulatis hyalinis. †.

Patria. Brasilia, ad arbores prope Novo-Fribur-ım: Beyrich m. Januarii.

Ex animadv. auctoris ab *H. laxifolio* notis laudatis fferre legitur. An *H. reptans?*

107. **H. thelipodium** C. Müll.; *androgynum;* caulis pens vage ramosus, ramis prostratis simplicibus com-essis rigidiusculis; folia caulina conferta *subbifaria pa-ıtissima vel subsquarrosa, cordato-oblonga acuta,* inte-rrima enervia concava interdum convoluta luteo-viridia entia, angustissime lineari-areolata; perich. dense im-icata, ext. minutissima late ovata obtusiuscula concava tegerrima enervia dilute viridia parallelogramme areo-ta, interiora antheridia includentia duplo majora subcor-ıta mucronata, intima archegonia cingentia longiora an-ıstiora ovata acuta; theca in ped. flexuoso tortili pur-ırascente *brevi* subverrucoso erecta *parvula* elongate rathiformis, operc. conico longissime rostellato longiori; rist. d. ext. intus valde cristati, lutei, int. fissi flavidi ticulati, ciliis rudimentariis (?). †.

Leskea patens Hsch. Fl. Bras. I. p. 72.

Patria. Brasilia, in Minis generalibus: Martius.

Fide auctoris *Leskeae rufae* ej. (*Rhegmatodonti* nob.) millimum, sed notis illustratis distans. Generice jam ngissime diversum et inflorescentia androgyna, foliis et d. scabro e distinctissimis speciebus videtur.

108. **H. Estrellae** C. Müll.; dioicum? caulis repens regulariter pinnatim ramosus, ramis patentibus prostra-s plerumque simplicibus laxiusculis; folia densa erecto-ıtentia lanceolata longe acuminata integerrima enervia ıfescentia anguste lineari-areolata; perich. longissime cuminata concava, marginibus involutis, integerrima

enervia, luride viridia, laxius reticulata; theca in p laevi tortili fuscescente cernua anguste cylindrica lu nea, ore purpurascente, operc. conico subulato di longiori, calyptra glabra; perist. d. ext. intus parum stati, rufescentes, int. lutei articulati, cilus rudi riis (?). †.

Leskea cylindrica Hsch. Fl. Bras. I. p. 73.

Patria. Brasilia, Serra d'Estrella, ad trunces a rum sylvestrium: Beyrich, Augusto.

H. thelipodio et *pyrrhophyllo* fide auctoris simillim ab utroque autem differt foliis lanceolatis longe acum tis, ab *H. thelipodio* praeterea theca cylindrica, nec o gate cyathiformi, ab *H. pyrrhophyllo* statura gracili, p brevi et theca longiore angusta.

109. **H. Dozyanum** C. Müll.; caulis repens vage mosus, ramis prostratis subsimplicibus remotiuscul cuatis compressis; folia dense imbricata erecto-pa apice incurva ovata v. oblonga obtusa concava cochle formia integerrima, nervis binis brevibus obsoletis, d et margine papilloso-aspera; perich. erecta ovato-l ceolata, interiora in acumen attenuata; theca nut ovato-oblonga incurva, operculo conico obtusiuscula.

H. verrucosum Dz. et Molkb. Ann. d. sc. nat. 1844. p. 309. men ob Hampeanum synonymum mutandum.

Patria. Java.

110. **H. macrodontium** Hsch. (Fl. Bras. I. monoicum; caulis arcuato-declinatus radicans pinn ramis erectis fasciculato-ramulosis rigidis recurvis; fo caulina remota erecto-patentia subtriangularia acumin caviuscula, ramea laxiuscula planiuscula, pallide virid argute serrata, nervis binis ad medium evanidis viridibus cellulis linearibus confertis; perich. e basi latissima con cava in acumen longissime subulatum recurvatum atte nuata, enervia subintegerrima amoene viridia, basi laxius reticulata; theca in ped. unciali erecto flexuoso tortili gra cili laevi purpurascente, superne ferrugineo nutans ovata obliqua brunnea exannulata; perist. d. ext. longi late lan-

ceolato-subulati, intus cristati postice ferruginei, antice yalini, punctati, interni in membrana lutea lanceolato-ubulati solidi, ciliis ternis brevioribus hyalinis teneris interjectis. †.

Patria. Brasilia, in districtu adamantium prope Villam Ricam et Salgado ad fl. S. Francisci: Martius; prope Tijucam in vicinia Sebastianopoleos: Olfers.

Cui affine?

Subsectio IV. **Taxicaulis.** Caulis *tenellus plumulose folio-us*; folia vix vel parum secunda, elongate angustissime areolata evia, binervia.

Ab *Euomaliis* statura graciliore foliisque plus minus ecundis plantae longinquae; a *Cupressinae* congeneribus liis oblique acuminatis (ut rami) vix falcatis.

A. *Cellulae alares quadratae v. vix ullae.*

a. *Folia integerrima.*

111. **H. pulchellum** Dicks. (Crypt. Fasc. II. 1790; . 13. t. 5. f. 6.); *dioicum;* cespites *late prostrati viri-issimi nitiduli;* caulis *tenerrimus angustissime compla-atus flexuosus sciuroideus;* folia caulina *amoene plumu-se imbricata laxa, indistincte distichacea,* anguste ovata reviter tenuiter falcate acuminata acutissima, concava, tegerrima, margine ubique erecto, nervis binis brevis-mis viridibus obsoletis, cellulis angustissime linearibus eluti conflatis virentibus, alaribus vix ullis; perich. an-uste vaginantia acuminata pallidissima enervia pauca; eca in ped. elongato purpurascente laevi inclinata bre-iter cylindracea subcernua badia annulata, operc. conico evi pallido; perist. d. ext. angusti lutei, int. in mem-ana albida laevi *albidi punctulati,* vix pertusi, ciliis nis aequilongis *punctulatis* albis.

H. nitidulum Wahlenb. Fl. Lapp. 1812. p. 370. — *H. contex-um* Schleich. Cr. Helv. Exs. Cent. III. No. 49. — *Leskea nitidula* Wahlenb. in Web. et Mohr. Ind. Mus. — *L. pulchella* Hdw. Sp. usc. p. 220. t. 55, icone pessima!

Patria. In locis deustis supra vegetabilia putrida, alpinis Helvetiae, Bavariae, in Sudetis, Pyrenaeis,

montibus Scoticis, Norvegiae, Sueciae, Lapponiae et
Ångströmi in Dania quoque occurrit. — *Augusta*.

Habitu *H. denticulati* formas minores haud male
ferens, sed foliis falcatis primo adspectu distinctum
notis laudatis facile cognoscendum.

112. **H. brachyneuron** C. Müll. (Bot. Zeit. 184
109.); *monoicum*; cespitosum *procumbens* similim
vage ramosum, ramis *brevibus gracilibus luteoviri*
compressiusculis; folia caulina erecto-patentia, ellipti
lanceolata, acumine subrecurvo filiformi brevi termin
subintegerrima concava, margine erecto, rarius vix
flexo, nervis *brevibus subobsoletis pallidis*, cellulis el
gatis angustis pallidis, *basi pellucidis vel flavidis*, ab
bus vix ullis paucissimis quadratis pellucidis v. *flavi*
perich. latius vaginantia, longius acuminata; theca in
longiusculo laevi tenero aurantiaco subnutans minute
lis brevicolla aequalis badia, exannulata, operc. *brevi*
nico oblique rostellato; perist. minuti d. ext. lutei,
flavidi solidi aequilongi, ciliis brevioribus singulis.

H. subsimplex Hook. et Wils. in Gardn. Musc. Bras. No.

Patria. Brasilia, Serra dos Orgaôs, Martio 18
Gardner; insula St. Catharina ad cortic. arbor. sylv
pr. flum. Itajahi, Sept. et Octbr. 1846: Pabst.

Notis laudatis ab *H. Richardi* haud dissimili
longe differt.

113. **H. gracillimum** Hsch. (Fl. Bras. I.
monoicum; caulis repens gracillimus radiculoso-to
sus rufus, innovationibus plerumque simplicibus, inter
brevissime ramulosis, compressis, pallide viridibus; fo
disticha erecto-patentia subsecunda, ovato-acumina
subobliqua, integerrima, *enervia*, margine anguste reflexa,
cellulis ubique angustis virentibus; perich. intima e bas
latiore concava vaginatâ longissime lanceolato-subulata
subserrulata enervia subhyalina basi laxe quadrate reti-
culata, caetera integerrima; theca in ped. erecto tortil
laevi ferrugineo, apice pallidiore incrassato curvulo pen-
dula oblongo-ovata aequalis, deoperculata obconica fusco-

runnea, operc. ferrugineo dimidio breviori, *conico acuto;* erist. d. ext. ferruginei, int. lutei solidi, ciliis solitariis revioribus pallidis.

Patria. Brasilia, prov. Minarum, locis umbrosis: Martius.

Ex animadv. auctoris ab *H. splendidulo* valde affini perculo conico acuto, non hemisphaerico brevissime rostellato, distinctum. Fructum non vidimus. Ab *H. brachyneuro* notis laudatis differt.

b. *Folia denticulata.*

114. **H. Borrerianum** Spruce (Mst.); *dioicum;* caudex decumbens anguste complanatus, ramis distantibus *accidissimis, saepius in ramulos tenerrimos flagelliformes confervoideos sparsifolios dissolutis,* amoene viridibus; folia caulina laxe disticha, anguste ovata, in acumen tenue flexuosum breviusculum attenuata, profunde complicato-concava, irregulariter plicata, margine erecto, apice subdenticulato, nervis binis brevibus, cellulis ubique angustissime linearibus subconflatis amoene lutescentibus, alaribus vix conspicuis minutissimis; theca *H. elegantis.*

H. elegans Spruce in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 24!

Patria. In zona montosa et subalpina Pyrenaeorum centralium pr. Bagnères-de-Bigorre, ad terram (♀); Pibis de Sajust prope Bagnères-de-Luchon, ad rupes granaticas (♀ et ♂): Spruce; ad rupes arenaceas Angliae, in Eridge Park, Tunbridge Wells, in vicinia Castle-Haward, in Eskdale: Spruce, Borrer, Wilson, Hitten, prope Bartry fertile legit Miss Hutchins.

Pulchra species, notis laudatis ab omnibus congeneribus Europaeis distincta. Theca, ab auctore accuratius quidum descripta, nobis non visa. Cespites ob ramulos tenerrimos saepius creberrimos *Hypno subtili* simillimi et steriles observantur.

115. **H. albescens** Schw. (Suppl. III. I. 2. t. 226.); *monoicum;* late cespitosum intertexto-repens vage ramo-

sum, molle, tenellum, ramis breviter pinnatis teneris an-gustissimis compressis albescentibus nitidulis; folia cau-lina laxe conferta subdistichacea, e basi caviusculâ la-tiuscule cordato-lanceolata, in acumen longiusculum te-nue plus minus flexuosum producta, margine ubique ere-cto apice vix denticulato, nervis obsoletis, cellulis ang-stissime linearibus ubique albidis, alaribus vix ullis obso-letis; perich. paucissima latius vaginantia longius acu-nata basi laxius reticulata subdenticulata; theca in pe-tenero longiusculo rufo laevi horizontalis minute ova-madefacta aequalis, sicca ore parum coarctata, brevicol-badia, exannulata, operc. conico brevi; perist. d. ext. fla-vidi breves, int. lutei aequilongi imperforati, ciliis sing-lis albidis.

Patria. Nepal: Wallich. Java, monte Merapi m-rid., in sylvis, alt. 3 – 5000 : Junghuhn.

116. **H. leucophyllum** Hmp. (in litt.); *monoicum H. albescenti* simillimum, *minus nitidum et magis dis-chum*, folia caulina e basi *brevissima inaequaliter co-strictâ subovato-acuminata*, subdenticulata planiuscu-cellulis longioribus; theca in ped. *brevi*, *madefacta med-constricta*, operc. conico brevi obliquo; perist. *H. a-bescentis.*

Patria. Chile ad arbores.

117. **H. albulum** C. Müll.; *dioicum;* late laxe ca-tosum *valde depressum tenerum planissimum angu-mum tenerum albulum nitidum*, ramis brevissimis va-folia caulina dense conferta *indistincte falcata*, e ba-subtruncata ovata *parum subfalcate acuminata*, vix li-nervia, planiuscula, vix denticulata, margine erecto, cel-lulis elongatis angustissimis *pallidissimis*, *basi saepius flavidis*, alaribus obsoletis pallidis v. flavidulis; perich. longius acuminata, basi vaginantia, vix falcata; theca in ped. brevi laevi rufo tenui inclinata minute ovalis brevi-colla fusca exannulata, operculo conico oblique acuminato; perist. d. ext. breves angusti lutei, int. angusti flavi im-perforati, ciliis singulis dentes aequantibus tenerrimis.

H. subsimplex Sulliv. Musc. Allegh. No. 52. — *H. tenerum*? Hook. et Wils. in Drumm. Musc. Amer. No. 108 et 109.

Patria. America septentrionalis, in truncis emortuis atque in terra, prope Montgomery Alabamae: Sullivant.

Caracteribus laudatis facile discernendum. Ab *H. subsimplici* habitu et interna structura toto coelo refugit.

118. **H. taxiforme** Brid. (Sp. Musc. II. p. 95.); *ioicum;* caulis flavidus laxe foliosus subnudus prostratus, ramis brevibus tenellis planissimis flavescentibus pinnulatus; folia caulina distichacea laxe conferta *lanceolata cuminata* stricta v. apice curviuscula caviuscula superne enticulata, margine erecto, nervis brevibus flavidulis, cellulis angustissime linearibus sordide viridibus pallidis, *laribus vix ullis paucissimis pellucidis fugacissimis.*

Brid. Br. univ. II. p. 392. — Schw. Suppl. III. II. 2. p. 286.

Patria. Sierra Leone Africae littoralis occidentalis: Afzelius ad terram legit.

Flos masc. parvulus, fol. subsquarrulosis; sterile hucusque notum.

119. **H. radicans** Brid. (Mant. Musc. p. 184.) caulis tenellus flavidus repens radicans, *foliosus*, ramis tenellis brevibus *subcompressis gracillimis* flavescentibus brevibus v. longioribus et parce brevissime ramulosis; folia caulina laxe conferta angustissime lanceolato-acuminata stricta brevia, concava, margine *vix conspicue angustissime reflexo*, inferne indistincte superne distincte denticulato, nervis binis brevibus flavidis, cellulis angustissime elongate linearibus pallidis, alaribus vix ullis ad infimam basin *minutissime quadratis persistentibus;* theca elongata erecta.

Leskea serrulata Brid. II. p. 763.

Patria. Insula Bourbonis.

Ab *H. taxiformi* caracteribus declaratis differt. Fructus nobis haud visus.

B. *Cellulae alares vesiculaeformes.*

120. **H. cirrhifolium** Schw. (in Freycinet Voy. autour du monde. Bot. par Gaudichaud. T. I. p. 129.); *mo-*

noicum; repens depressum *latiuscule deplanatum* adnatum, ramis brevibus irregulariter pinnatulum, pallide viride; folia caulina disticha densa, e basi angustiore ovata, acumine tenui flexuoso terminata, concava, integerrima, margine erecto, nervis obsoletis, cellulis pallidis basi flavidis, alaribus majusculis vesiculaeformibus flavidis; perich. longiora ovato-acuminata; theca in ped. brevi ascendente rufo apice curvato et *scaberulo angustissime cylindracea macrostoma* nutans fusca, operc. conico *longissime flexuose aciculari;* perist. d. ext. lati longi, trabeculis latere ciliati fusci, int. aequilongi angusti solidi, ciliis solitariis *rudimentariis.* †.

Leskea cirrhifolia Schw. Suppl. III. II. 2. t. 290. — *Hookeria cirrhifolia* Walker-Arnott l. c.

Patria. Ad ligna putrida in insulis Moluccis Rawack: Gaudichaud.

121. **H. striatellum** C. Müll.; *monoicum;* latissime cespitosum humile ascendens, ramis *gracilibus* luteo-viridibus splendentibus, folia caulina *squarroso-disticha subhomomalla, basi cellulis alaribus distinctis, superioribus minutis quadratis paucis, inferioribus nonnullis vesiculoso-turgidis decurrentibus, pallide viridibus;* ped. gracillimus purpureus *in thecam inclinatam veluti obconico-cylindraceam subclavatam longicollam macrostomam parvulam,* siccitate veluti striatellam, pallidam dein aurantiacam *sensim incrassatus;* perist. brevius, internum ciliis *tenuioribus vix nodosis brevibus.*

Hypnum Mühlenbeckii Br. et Sch. in litt. — *H. Seligeri* Sw. ex parte fide Schimper! — *H. pulchellum* Br. et S. in Drumm. Musc. Am. Lond. Journ. of bot. 1843. II. p. 668. — *H. Silesianum* Hook. in Musc. Amer. Drumm. No. 168. — *Leskea striatella* Brid. II. p. 762!!

Patria. In Sudetis, ubi haud rarum, ad fossas „am kleinen Teich" primus omnium legit et ab *H. Seligeri* distinxit Funk m. Augusto, dein Sendtner 1839; in alpe Grimsel Helvetiae: W. P. Sch. 1848; in locis umbrosis et saxosis Canadae superioris copiose: Drummond; in Alpib. Julicis, Terglou versus Belo Polje: Sendtner 13.

Aug. 1841; m. Albula Rhaetiae: Mühlenbeck; in Pyrenaeis rarissimum: Spruce. In insula Terre Neuve Americae sept. legit La Pylaie, in Ohione Sullivant. Rarissime fructificans.

Flores masculi in vicinia femineorum creberrimi in gemmam unicam aggregati. Ab *H. Seligeri* notis cursive impressis certe differt.

122. H. subsimplex Hdw. (Sp. Musc. p. 270. t. 69.); *monoicum;* late laxe cespitosum longe repens, ramis irregularibus brevibus v. longioribus mollibus *subalbescenti-viridibus nitidulis compressiusculis;* folia caulina laxiuscule plumulose imbricata, erecto-patentia, *e basi angustiore brevi latiuscule ovato-acuminata strictiuscula subintegerrima caviuscula, margine erecto,* nervis obsoletis, cellulis *albidis, basi flavidis, alaribus* 4 – 5 *aureis majusculis;* perich. *longius filiformi-acuminata* latius vaginantia, basi laxe et flavide superne sensim incrassate reticulata, margine hic illic revoluto subintegerrimo; theca in ped. *longiusculo aurantiaco laevi* horizontalis v. sicca nutans, minute ovalis ore constricta, exannulata, operc. *cupulato oblique rostellato brevi;* perist. d. ext. flavidi, int. lutei imperforati aequilongi, ciliis singulis interjectis.

Isothecium subsimplex Brid. II. p. 357 ex parte. *H. simplex* Brid. Sp. Musc. p. 251. et *H. simplicissimum* ej. Musc. Rec. II. II. p. 189 e spec. Hb. auctoris species confusa, ad *H. simplex* minime pertinens, delenda.

Hypnum brachypoma Schw. inedit. in Musc. Surinameus. Weigeltianis, forma viridior.

Patria. Ex India occidentali primus retulit Swartz; in Guiana Batavica (ad truncos vetustos prope Paramáribo leg. Kegel et Weigelt in locis non designatis) et Gallica, ubi leg. Rich. Schomburgk; ex insula Trinidad Antillarum misit Crüger.

Notis cursive impressis facile discernibile.

123. H. splendidulum Hsch. (Fl. Bras. I. p. 78.); *monoicum;* longe repens, ramis brevibus subsimplicissimis pinnatulum, peranguste *deplanatum luteo-viride flaccidum* nitidulum; folia caulina laxe imbricata, e basi brevi

constrictâ ovato-acuminata, acumine longiusculo subobliquo, margine erecto vix denticulato, concava, nervis obsoletis, cellulis pallidissimis subconflatis basi flavidis, alaribus majusculis vesiculaeformibus flavidis; perich. longius acuminata *haud filiformia*, latius vaginantia, margine parum reflexo magis denticulato; theca in ped. *breviusculo* laevi purpureo horizontalis v. pendula, parva *obovata brevis basi substrumosa*, deoperculata ore dilatato, brunnea, exannulata (?), operc. hemisphaerico brevissime rostellato dimidia thecae longitudine; perist. d. ext. *latere cristato-trabeculati*, pallide ferruginei, apice hyalini punctati, int. lutescentes paullo breviores solidi, ciliis solitariis capillaribus vix brevioribus.

Patria. Brasilia, Serra dos Orgaôs supra saxa et ad truncos arborum sylvestrium, Febr. c. fr. maturis: Beyrich; prope Tijuca in vicinia urbis Rio de Janeiro: Olfers, Sellow, Merkel; in Serra d'Estrella et prope urbem S. Paolo: de Martius.

Caracteribus designatis ab *H. subsimplici* certe distat.

124. **H. Trinitense** C. Müll.; *monoicum;* cespites latissimi maxime deplanati pallescentes splendentes; caulis intricate pinnatim divisus, valde complanatus, ramis repentibus breviusculis angustis tenellis; folia caulina *squarrosule bifaria albescentia*, dense imbricata, e basi parum impressa, cellulis alaribus utrinque 2—3 hyalinis vesiculaeformibus *parvis hyalinis rarius subflavidis praedita*, latiuscule ovata, acumine longiusculo *plerumque falcato-reflexo terminata, torsione valde irregularia, planiuscula*, margine *hic illic anguste revoluto distincte denticulato*, nervis obsoletis, cellulis pallidissimis subconflatis, basi subflavidis; perich. strictissima, latiuscule vaginantia, longiuscule acuminata, superne distincte denticulata, enervia, margine erecto v. revoluto, cellulis basi longioribus et laxioribus; theca in ped *elongato* gracillimo laevi aurantiaco horizontalis, minute obovata, operc. conico *longiuscule* tenuissime oblique subulato; perist. d. ext. ferruginei, latere parum cristati, apice hyalini punctu-

lati, int. flavi solidi, ciliis 2—3 brevibus subconflatis albis articulatis subrugulosis.

Patria. Insula Trinidad Antillarum minorum, ad Maraccas, Arima et montem Tocuche: Crüger m. Aug. et Dec. 1844 et 1847 legit.

Ab *H. splendidulo* Hsch. simillimo vestigiis cursive impressis facile distinguitur.

125. **H. Richardi** Schw. (Suppl. I. II. p. 205. t. 93.); *monoicum; tenuissimum tenerrimum longe prostrato-repens vage intertexte ramosum viride nitidulum distichaceo-compressum maxime appressum;* folia caulina laxe erecto-conferta, anguste ovato-acuminata, *acumine breviusculo subrecto,* concava, *margine hic illic parum reflexo* subintegerrimo, nervis obsoletis, cellulis subconflatis viridibus, *basi flavidis, alaribus majusculis vesiculaeformibus utrinque* 3—4 *flavidulis;* perich. parum latiora et longiora basi laxius reticulata; theca in ped. pro exiguitate plantae longiusculo tenerrimo laevi aurantiaco horizontalis v. sicca nutans, *minutissime ovalis vix conspicua* ore constricta, deoperculata macrostoma exannulata badia, operc. cupulato longius aciculari obliquo aurantiaco; perist. d. ext. lutei, int. flavidi solidi, ciliis singulis tenerrimis.

Isothecium Richardi Brid. II. p. 358.

Patria. Guiana Gallica: Richard in truncis putrescentibus legit. Guiana Batavica, in truncis *Tamarindi Indicae* Surinami: Kegel Junio 1844. Brasilia, Ega ad fl. Amazonum: Pöppig 1831.

E tenuissimis, notis laudatis facile cognoscendum.

126. **H. Krakakammae** C. Müll.; *monoicum; H. Richardi* simillimum, sed *brevius repens* et parum robustius; *rami apice secundi, vix compressi;* folia caulina anguste ovato-acuminata, *acumine falcato;* perist. d. ext. intus magis ciliato-trabeculati.

Patria. In sylvis primaevis Krakakammae in districtu Uitenhagen Cap. b. spei, Julio 1832: Ecklon.

127. H. nigricaule Brid. (Sp. Musc. p. 95.); tenellum procumbens breviter pinnatulum pallidum, compressum, caule nigrescente; folia caulina subdistichacea confer ta, e basi constricta anguste ovato-lanceolata long acuminata strictiuscula v. flexiuscula concava, margine erecto integerrimo, nervis obsoletis, cellulis pallidis basi flavidis, alaribus majusculis vesiculaeformibus aureis.

Brid. II. p. 393. — Schwägr. Suppl. III. II. 2. t. 286.

Patria. Sierra Leone Africae littoralis occidentalis Afzelius in terra legit.

Flos masc. parvulus, fol. latiuscule ovatis concavis brevi-acuminatis, ext. minutis, superne emarginatis, laxiuscule reticulatis; sterile hucusque notum.

Incertae sedis.

128. H. brevisetum Hsch. (Fl. Bras. I. p. 78.); monoicum; caulis gracillimus repens subfasciculatim ramosus, ramis vagis subsimplicibus complanatis amoene viridibus; folia caulina laxe imbricata disticha patentia, lanceolato-acuminata subobliqua, caviuscula integerrima enervia (?) longe anguste pellucide reticulata; perich. intima e basi latiore concavà longissime lanceolato-subulata, subintegerrima enervia pellucida pallide virescentia superne elongate anguste basi laxius reticulata; theca in ped. gracili tortili apice parum curvato incrassato laevi ferrugineo suberecta, ob curvaturam pedunculi cernua obovata brevis aequalis pallide brunnea, deoperculata horizontalis fusca, operc. dimidio breviori luteo; peris. ext. inferne rufescentes, int. lutei lanceolato-subulati solidi punctati, ex unica cellularum serie compositi, cilia singulis punctatis hyalinis. ☥.

Patria. Brasilia, ad truncos arborum prope Rio Janeiro: Merkel, Julio et Augusto.

Cui affine?

129. H. leptochaeton Schw. (Suppl. I. II. p. 296.); monoicum; caulis repens aliquoties divisus, pinnatus, ramis depressis copiosis semuncialibus; folia falcata, ovata,

acumine brevi vel dimidio folio aequali, integerrima, parum concava, valde pellucida, vix nitida, amoene viridia, enervia, cellulis reticuli parallelogrammis, in arcus transversos digestis; perich. oblongo-acuminata, apice denticulata; theca in ped. erecto unciali, apice incurvo, tenuissimo tortili luteo-brunneo pendula, urceolata aequalis, siccitate infra os valde contracta, luteo-brunnea, operc. longirostri. †.

Isothecium leptochaeton Brid. II. p. 387.

Patria. Ad truncos arborum insulae Martinique et Cayennae: Richard.

130. **H. Olfersii** Hsch. (Fl. Bras. I. p. 83.); monoicum; caulis repens laxe irregulariter pinnatus, ramis brevibus subsimplicibus patentibus prostratis albescenti-viridibus; folia caulina subdisticha laxe imbricata secunda subhomomalla, oblongo-lanceolata longissime acuminata, integerrima, enervia (?), lineari-areolata; perich. intima angustissima et longissime acuminata, omnia integerrima enervia concava dilute pallide viridia lineari-areolata; theca in ped. gracili tortili laevi purpurascente apice curvato horizontalis, minute oblonga aequalis, operculo hemisphaerico longe rostrato thecam aequante; perist. d. ext. intus cristati, ferruginei, interni lutei solidi, ciliis brevioribus subulatis hyalinis interpositis. †.

Patria. Brasilia, Tijuca in vicinia Sebastianopoleos: Olfers.

Ob cellulas alares nobis ignotas (forte vesiculaeformes flavidas) sedis incertae.

131. **H. retroflexum** Hook. (in Wallich. Cat. n. 7656.); *monoicum?* longe repens tenellum, ramis brevibus erectis regularibus simplicibus eleganter pinnatum, folia caulina latiuscule ovata, acumine breviusculo plus minus *recurvo* latiusculo terminata, *siccitate recurva squarrosa*, margine erecto ubique serrulato, nervis brevissimis vix conspicuis. †.

Hook. Ic. Pl. Rar. I. t. 23. f. 6. — Harvey in Lond. Journ. of bot. 1840. 2. p. 19.

Patria. Nepal: Wallich.

Sterile tantum notum.

132. **H. cyperoides** Hook. (in Wallich. Cat. n. 7653.); *monoicum?* repens tenellum, ramis brevibus patentibus regularibus deplanatis dense approximatis eleganter pinnatum, pallide viride; folia caulina subdisticha patentissima ovata, acumine brevi obliquo, margine erecto ubique minutissime serrulato, nervis subbinis; theca in ped. breviusculo horizontalis minute ovalis, operc. conico curvirostro; perist. d. ext. angusti, int. ciliis 1—2 interpositis. †.

Hook. Ic. Pl. Rar. I. t. 23. f. 5. — Harvey in Lond. Journ. of bot. 1840. 2. p. 19.

Patria. Nepal: Wallich.

Cui affine?

133. **H. latifolium** Tayl. (Lond. Journ. of bot. 1848. p. 196.); *dioicum?* procumbens vage pinnatim ramosum, gracillimum, ramis brevibus subincurvis subcomplanatis pallide viridibus; folia laxa subdisticha subsquarrosa patentia *late cordata*, elongate acuminata serrata enervia, margine basi reflexo; perichaetia brevissima; theca in ped. laevi cernua ovata, operculo *conico brevi;* perist. int. d. lanceolati paulisper perforati, ciliis apice saepius divisis interpositis. †.

Patria. In Andibus Quitensibus, Puerto del Napo: Dr. Manuel Villavicensio in Coll. W. Jamesoni.

Notis cursive impressis ex auctore facile a congeneribus distingui posse dicitur.

134. **H. pygmaeum** C. Müll.; *monoicum;* decumbens subramosum debile complanatum vix unciale albescens vix viride nitidum, caule apicem versus crescente; folia imbricata erecto-patentia lanceolata acuminata integerrima enervia; perichaetia minuta; theca in ped. laevi erectiuscula paulisper inclinata turbinata macrostoma, operc. rostrato; perist. d. ext. linea longitudinali obscura exarati, int. ciliis solitariis rudimentariis interpositis. †.

Leskea pygmaea Tayl. Lond. Journ. of bot. 1848. p. 197.

Patria. Andes Quitenses, Puerto del Napo: Dr. Manuel Villavicensio in coll. W. Jamesoni, Majo 1847.

Ex animadv. auctoris *oculis nudis vix conspicuum, pygmaeum.*

Subsectio V. **Cupressina.** Caulis complanatus, *ramis falcatis uncinatis* pinnatim ramosus; folia *distincte falcata*, elongate lineari-areolata, binervia, laevia.

A. *Cellulae alares quadratae distinctae.*

a. *Folia margine plus minus revoluto.*

135. **H. cupressiforme** L. (Sp. Pl. p. 1592.); *dioicum;* late cespitosum decumbens, plus minus deplanatum, ramis brevibus distantibus apice subhamulosis pinnatum, e viridi lutescens, humile v. procerum; folia caulina dense imbricata, *latiuscule ovato-lanceolata longe falcato-acuminata,* integerrima v. subdenticulata, *margine erecto, infima basi ad cellulas alares multas planiusculas quadratas laxas granulosas pellucidas rarius flavidulas constricto-reflexo,* nervis brevibus obsoletis, cellulis angustissime linearibus plus minus pallide viridibus; perich. latius vaginantia, intima longe convolutacea et acuminata, apice denticulata, tenerius reticulata, enervia, ext. multo minora ovato-acuminata, *haud plicata;* theca in ped. mediocri purpureo laevi *suberecta, cernuo-cylindracea* fusca pachydermis, operc. *turgide conico recte rostrato* concolori, annulo lato; perist. H. mollusci, internum valde perforatum secedens, pallide flavum, ciliis aequilongis singulis v. binis tenuissimis.

Hypnum (*Stereodon*) *cupressiforme* Brid. II. p. 605—12. incl. variet. *mammillata* p. 608; *tectorum* p. 612, forma magis julacea, saepe in tectis et rupibus umbrosis; *filiformi* p. 609, ramis tenuissimis, in sylvis hic illic; *julacea* p. 608, ramis julaceis, foliis vix secundis et vix falcatis late ovatis, e Pyrenaeis, var. *tectorum* affinissima; *complanata* et *lacunosa* p. 110, forma complanata viridissima, foliis late ovatis, cellulis alaribus laxioribus et margine magis revoluto: *Hypn. lacunosum* Wieb. Fl. Werth. n. 299?; *decipiens* p. 608, foliis vix secundo-inflectentibus, sed parum homomallis: *Hypn. decipiens* Hoffm. Deut. Fl. II. p. 73; *compressa,* vix forma propria, theca subovata erectiuscula: *H. compressum* Schultz

Prodr. Fl. Starg. n. 898; *chrysocoma* p. 609, eleganter pinnata lutescente splendente, tenui, appresso-prostrata. Var. *Lauri* ex insula Teneriffa forma foliis angustissimis et ramis tenerrimis videtur. Varietates *longisetam*, *plumosam* p. 611 et *corruscantem* p. 612. in Hb. Brideliano non reperimus. Var. *nigro-viridis* p. 611, quae fide *Bridelii Hypn. nigro-viride* Turn. Musc. Hib. p. 141 dicitur, cum var. *tectorum* convenit. *H. nitens* Timm. Prodr. Fl. Megap. n. 828. — *H. homomallum* Bert. Pl. Rar. Ital. Dec. IV. n. 13. — *Neckera cupressiformis* Willd. Prodr. Fl. Ber. n. 936. — *H. fastigiatum* Wieb. Fl. Werth. p. 301? — *Hypnum cupressiforme* L. Hdw. Musc. Fr. IV. p. 59. t. 23. — H. crispum, cupressiforme, foliis aduncis. Dill. Musc. p. 287. t. 37. f. 23.

Patria. Per totam Europam, Americam septentrionalem, Asiam borealem, et in Cap. b. spei, loca diversissima habitans, e planitiebus in alpes ascendens. — *Auctumno* et *hyeme*, sed per totum annum thecis ornatum.

Species maxime polymorpha quidem, sed vestigiis supra illustratis facillime et certe discernibilis, cosmopolites muscorum pleurocarpicorum ut *Ceratodon purpureus* acrocarpicorum.

136. **H. micans** Hook. (Wils. in Brit. Fl. V. II. p. 83.); *H. cupressiformi* simillimum, sed partibus omnibus gracilioribus aureo-luteis; folia erecto-patentia rotundato-ovata acuminulata concava serrata, margine reflexo, brevissime binervia. †.

Taylor in Mackay Fl. Hib. II. p. 42.

Patria. Hibernia, in sylvis ad Glengariff, ad Killarney haud infrequens: Miss Hutchins.

137. **H. reptile** Rich. (in Mich. Fl. Amer. Bor. II. p. 315.); *dioicum;* longe repens, ramis *gracillimis fragilibus filiformibus patentissimis densissime foliosis* laete viridibus; folia caulina e basi *ventricose late ovata subito fere falcata* acuminata, ubique obsolete denticulata, cellulis alaribus *paucioribus minutis, basilaribus* cum nervis subobsoletis *flavidulis;* perich. caulinis multo longiora stricta vaginantia longe lanceolato-acuminata *plicata*, tenerius reticulata; theca *primum olivacea*, dein fuscescens, operc. e basi protuberante conico magis rostellato; perist. int. ciliis 2—3 plus minus cohaerentibus.

H. pelitnochroon Łobarzewski in Haidinger's Naturw. Abh. I. 1847. p. 51, e specie Novariensi, Notarisiana, quacum ex auctore identicum! Forma caule magis julaceo et *H. cupressiformi var. tectorum* analoga! — *Hypnum reptile* Rich. Schw. Suppl. II. II. p. 163 t. 146. — Brid. II. p. 535. — *H. recurvans* Hb. Cooley. No. 53. Brid. II. p. 614, forma curviramea dense cespitosa. — *Hypnum* (*Stereodon*) *protuberans* Brid. II. p. 612. — *H. cupressiforme* var. *protuberans* al. — *H. cupressiforme* var. foliis angustioribus Hook. in Drumm. Musc. Amer. No. 207.

Patria. In lignis dejectis adrepens in monte Grandfather Carolinae superioris primus legit Michaux, ibidem dein Sullivant et in arboribus a Marylandia usque ad Carolinam superiorem; in Massachusets legit Cooley; pr. Reinhartsbrunn saltus Thuringici anno 1822 in sylvis Bridel detexit; praeterea per totius fere Europae montes editiores et alpes ad truncos putridos. — *Julio, Augusto.*

Ab *H. cupressiformi* proximo caracteribus datis certe distat.

138. **H. aluminicolum** C. Müll.; *monoicum; H. cupressiformi* simillimum, ramis gracilibus teneris luteis; folia caulina *anguste lanceolato-acuminata* falcata profunde concava, margine *revoluto superne serrulato*, nervis plerumque obsoletis v. altero brevissimo, altero elongato flavido, cellulis *basi flavidis*, alaribus *superioribus paucis quadratis pellucidis v. granulosis, inferioribus vesiculaeformibus laxioribus aureis;* perich. appressa late ovata breviter acuminata, margine revoluto v. erecto integro, concava laeviter plicata enervia, inferne laxissime flavide reticulata; theca in ped. tenerrimo elongato laevi cernuo-cylindrica *angustissima* macrostoma; perist. d. ext. breves latiuscule lanceolati subulati pallidi, trabeculis densis latere *fimbriatis* introrsum revolutis, int. in membrana pallida aequilongi angusti *imperforati*, ciliis aequilongis solitariis pallidis tenuissimis.

Patria. Mexico, in cavernis aluminatis ad pedem m. Cerro de los Nabajos: C. Ehrenberg.

139. **H. imponens** Hdw. (Sp. Musc. p. 290. t. 77.); *dioicum;* longiusculum dense et inaequaliter pinnatum, ra-

mis uncinatis luteo-viridibus brevibus; folia caulina *H. curvifolii*, sed *distinctius denticulata et perich. longissime acuminata, distinctius denticulata*, plicata, margine revoluto; theca in ped. elongato rubro laevi *erecta anguste longiuscule cylindracea subcernua*, fusca, nitida, exannulata; operc. conico *acuto* brevi; perist. *minus pallidum*, interni d. in membrana *brevi albida* ext. aequantes *rugulosi albidi* secedentes, ciliis *singulis rudimentariis albidis rugulosis*.

H. (*Sterodon*) *imponens* Brid. II. p. 618. — *H. cupressiforme* Hook. in Drumm. Musc. Amer. No. 205!

β. chrysocytus; cellulis basilaribus et alaribus majusculis pluribus et subvesiculaeformibus aureo-flavidis. *Hypnum Bruchianum* Schimp. in litt. — *H. curvifolium* Itzigsohn in litt. — *H.* (*Stereodon*) *Terrae Novae* Brid. II. p. 619!

Patria. America septentrionalis, ubi haud rara imos truncos stipitesque putrefactos habitat. Mühlenberg primus legit. Var. *β.* in Vogesi inferioris sylvaticis humidis prope Bärenthal: W. P. Sch. In trunco alni in palude reg. Neodamensis Borussicae, ubi sterile legit Itzigsohn. Ohio Amer. sept.: Sullivant Musc. Allegh. No. 16.

Ab *H. curvifolio* notis laudatis, ab *H. mollusco* thecae forma et peristomii structura differt.

b. *Folia margine erecto.*

140. H. curvifolium Hdw. (Sp. Musc. p. 285. t. 75.); *dioicum;* plus minus elongatum late complanatum breviter ramosum pinnatum aureo-lutescens v. viridulum; folia caulina dense imbricata, *latissime ovato-lanceolata obtusiuscule late acuminata* falcata, nervis saepe obsoletis brevibus, caviuscula subdenticulata, pallide angustissime subconflate areolata, cellulis alaribus ad marginem basis infimae *haud reflexum subauriculatum interdum subdenticulatum vix ullis paucissimis irregularibus pellucidis;* perich. stricta late vaginantia longe acuminata denticulata elongate striatule basi laxe pellucide areolata, *valde longitudinaliter plicata;* theca in ped. elongato purpureo

laevi horizontalis, arcuato-cylindrica *turgida brevis, latissime annulata;* operc. *obtuse conico brevi mammillato leptodermi;* perist. longum robustum, d. ext. latissime lanceolati, int. in membrana alta maxime reticulata flavida valde compresso-carinati vix perforati, ciliis 3—4 aequilongis remote articulatis albidis.

Hypnum cupressiforme var. *complanatum* Hmp. Veget. Cell. Herc. Exs. No. 96. — *H. amoenum* Hook. in Drumm. Musc. Amer. No. 196 ex parte. — *H. pratense* Koch in Brid. II. p. 769 memoratum. — *H. curvifolium* Hdw. Brid. II. p. 613 sub *Stereodonte.*

Patria. Prope Blankenburg Hercyniae ad fossam graminosam humidam sylvestrem copiose: Hampe; Suecia, Gefle ex Hartmann; Anglia: Spruce; per totos Pyrenäos in graminosis montium humiliorum sed raro fertile: Spruce; in America tota septentrionali, in paludibus. — *Aestate.*

Notis cursive impressis ab *H. cupressiformi* longe differt.

141. **H. fertile** Sendtn. (in Denckschr. d. Bot. Ges. z. Regensb. 3. Bd. 1841. p. 147.); *monoicum;* cespites latissimi procumbentes *stramineo-virides* intertexti *ditissime fertiles;* caulis repens firmus, ramis depressis, ramulis regularibus breviusculis plus minus hamulosis apicem rami versus brevioribus pinnatis; folia caulina conferta, maxime secunda, e basi *late ovata* lanceolata, in acumen tenue elongatum falcatum producta, *integerrima,* margine ubique erecto, nervis obsoletis, cellulis pallidissimis veluti conflatis, saepe rubiginosis, alaribus *submultis subventricosis maxime incrassatis parum flavidis;* perich. late vaginantia albida stricta longe lanceolato-acuminata, apice *subdenticulata,* basi laxe reticulata tenera, *subplicata;* theca in ped. *longissimo* crasso aurantiaco laevi flexuoso subrigido horizontalis *subarcuate ovalis brevis turgida majuscula aurantiaca olivacea,* operculo conico acuminato recto; perist. *H. callichroi,* ciliis plerumque ternis.

H. crinale Schleich. ex Rabenh. Deutschl. Krypt. II. p. 276; sed nomen nunquam antea editum, igitur Sendtneriano postponendum.

Patria. In ligno putrido „auf der Benediktenwand" alpium Bavariae 1832 detexit Sendtner, dein 1835 in iisdem locis in castris Romanis prope Grünwald circa Monachium et „im Reinthale an der Zugspitz", denique in Algovia „an der Stillach unter dem Freiburger-See" alt. 2500′, Sept. 1848, monte Peissenberg Bavariae superioris, in Littorale Austriae. In Helvetia Schleicher primus legisse dicitur. — *Majo*, serius in alpibus.

Ab *H. mollusco* notis cursive impressis differt; ab *H. callichroo* colore et thecae forma affini cespitibus procumbentibus jam distat; ab *H. imponente* theca arcuata turgida horizontali primo visu distinguitur; ab *H. cupressiformi* foliis subenervibus, eorum cellulis alaribus maxime incrassatis, margine ubique erecto et peristomio longe recedit; ab omnibus infloresc. monoica refugit. — Flos masc. in vicinia feminei squarrosifolius solitarius. Theca, nobis deoperculata sola visa, exannulata videtur.

142. **H. callichroum** Brid. (II. p. 631 sub Stereodonte.); *dioicum;* cespites altiusculi latissimi mollissimi *amoene stramineo-virides subsericei;* caulis decumbens ascendens elongatus tenuis, ramis *longiusculis simplicibus flagelliformibus* v. iterum ramulosis irregulariter pinnatus flaccidus; folia caulina e basi *late ovata lanceolata longe falcate tenuiter acuminata, integerrima* concava, margine erecto, nervis *longiusculis tenuibus inaequalibus pallidis,* cellulis pallidissime stramineis basi flavescentibus, *alaribus paucis subventricosis laxis pellucidis v. flavidis;* perich. stricta albida tenerrima, *integra* latissime vaginantia superne undulate plicata, in acumen elongatum tenuissimum subfalcatum producta, basi laxe reticulata; theca in ped. elongato flexuoso purpureo laevi inclinata *arcuate cylindracea, aurantiaca,* late annulata, *ore majori humore aequali sicco constricto,* operc. *turgide conico* acuminato brevi; perist. *H. Cristae Castrensis*, sed d. ext. latere vix pellucidi et cilia interna 2 — 4 similia.

Patria. In alpibus Salisburgiae, Nassfelder Tauern, Funk 1821 detexit; in alpe Dürrenstein prope Gaming

Austriae superioris, Septbr. 1843: Sauter et W. P. Sch.; in Sudetis am kleinen Teiche et in alp. Bavaricis Algoviae, Schattenberg pr. Obersdorf 5500′ alt. et am Schloppoltereck 5000′ alt. leg. Sendtner, in Vogeso et Sylva nigra: W. P. Sch., in Pyrenaeis, locis diversis: W. P. Sch. et Spruce in zona infraalpina alt. 6000′. Loca graminosa aquosa habitat. — *Ex aestate ad autumnum.*

Ab *H. mollusco* proximo ob vestigia cursive impressa distinctissima et pulcherrima species.

143. **H. chrysogaster** C. Müll.; *H. cupressiformi* simillimum, latiuscule complanatum pallide luteolum, *firmum subrigidum;* folia caulina late ovato-lanceolata falcato-acuminata subdenticulata planiuscula pallida subconflate areolata, basi flavida, nervis brevissimis obsoletis flavis, margine erecto, cellulis alaribus in *ventrem parvulum pulchellum rotundatum prominentem consociatis aureis laxiusculis, ad cellulas alares subauriculata.*

Hypnum cupressiforme Hook. et Wils. in sched. musc. antarct.

Patria. Insulae Aucklandi: J. D. Hooker.

144. **H. aduncoides** C. Müll.; *dioicum? procerum longirameum, ramis valde aduncis aureo-nitentibus* parce ramulosis; folia caulina *robusta longa,* late ovata elongate falcate acuminata, cellulis *albidis firmis veluti conflatis,* alaribus *inferioribus maxime ventricosis incrassatis hexagonis flavidis obscuris, superioribus paucis minutissimis obscuris incrassatis rhomboideo-quadratis,* nervis brevissimis obsoletis.

Hypnum cupressiforme φ. aduncoides Brid. II p. 612.

Patria. Insula Bourbonis, alt. 6000′: Bory St. Vincent.

Notis laudatis ab *H. cupressiformi* toto coelo differt et *Hypno adunco* magis aemulatur. Sterile tantum observavimus.

Species incerta.

1. **H. intorto-plicatum** Łobarz. (in Haidinger's Naturw. Abh. I. p. 58.); cespites *aureo-lutei sericeo-nitentes* molles vel compactiores; caulis prostratus *debilis fragilissimus* parce bifurcatim ramosus, ramis inferioribus strictis elongatis simpliciusculis, summis abbreviatis tumescentibus fasciculatis, falcatim incurvis; folia late ovato-lanceolata, vel e basi late ovata longe acuminata, subintegerrima absolute enervia (?), apicibus carinate retrorsum oblique falcatis, *uberrime longitudinaliter plicata, intorta*, disticha v. secunda. †.

Patria. In regionibus collinis Podolicis Haliciae orientalis, agro Leopoliensi; ibidem in rupibus arenoso-calcareis Lisienicensibus, locis lucidis aridioribus, sociis *Hypno abietino, polymorpho* et *lutescente*, v. in praeruptis argillosis humidiusculis umbrosis, ad vias cavas per fruticeta Coryleta et Carpineta, rupibus memoratis vicina, sociis *Bryo pallente et elongato*: de Łobarzewski sterile legit.

Notis cursive impressis distincta species videtur. Ab auctore c. *H. cupressiformi* et *callichroo* comparata est.

B. *Cellulae alares vix ullae, vesiculaeformes fugaces.*

a. *Theca inclinata.*

α. Caulis pennaeformis robustus.

145. **H. Crista Castrense** L. (Sp. Pl. p. 1591.); *dioicum;* cespites proceri latissimi mollissimi; caulis elongatus deplanatus carinatus, in ramos elongatos dichotomos divisus, ramulis densissimis distichis regularibus tenuibus uncinatis late, summum apicem versus attenuate pinnatus, *amoene virescens v. lutescens sericeus, frondem plumaeformem pulcherrimam efficiens;* folia caulina angustissime lanceolata longe tenuiter acuminata maxime falcata *valde longitudinaliter plicata*, margine erecto superne subdenticulato, nervis vix ullis, cellulis maxime pallidis veluti in membranam conflatis; perichaetia lon-

gissime et turgide cylindraceo-exserta, foliis longissime late lanceolato-acuminatis strictis elongate reticulatis enervibus valde plicatis denticulatis; theca in ped. elongato purpureo horizontalis majuscula, turgide arcuato-cylindrica subgibbosa firma brunnea, operc. conico obtusissimo brevi, annulo; perist. longissimum robustum, d. ext. subulati latere pallidi, interni in membrana altissima lutescente valde reticulata aequilongi, valde carinati flavidi, anguste perforati, ciliis aequilongis albidis nodosiusculis 3—6 laevibus.

Brid. II. p. 517. — *H. scalare* Zenk. et Dietr. Musc. Thuring. Exs. No. 26. — *H. Hedwigii* Lam. et Dec. Fl. Franç. n. 1348?

Patria. In sylvis umbrosis humidis, praeprimis montosis, rarius in planitierum pratis per totam Europam et in America septentrionali. — *Aestate et Auctumno.* Haud raro, sed rarissime fructificans.

146. **H. plumaeforme** Wils. (Lond. Journ. of bot. 1848. p. 277. t. 10.); dioicum? elongatum erectum pinnatim ramosum, ramis brevibus patentibus; folia falcato-secunda plus minus patentia ovato-lanceolata acuminata serrulata subenervia estriata; perich. longiora erecta attenuata; theca in ped. longissimo cernua arcuata cylindrica, operculo conico-apiculato. †.

Patria. In palude ad Tung-zan, ad littora prope Chusan Chinae: Anderson.

H. Cristae Castrensi simile, sed rami pauciores et folia haud striata. Ex animadv. auctoris inter speciem illam et *H. curvifolium* intermedium.

β. Caulis tener irregulariter pinnatus.

147. **H. molluscum** Hdw. (Musc. Fr. IV. p. 56. t. 22.); *dioicum; H. Cristae Castrensi* simile, sed *multo humilius, prostratum, ramis magis vagis, haud angulate patentibus, magis irregulariter pinnatis, caule haud conspicuo, tereti, inferne ochraceo-lutescens, superne viridissimum;* folia caulina *minuta,* lanceolata falcato-acuminata *brevia,* basi infima paulisper auriculato-dilatata,

cellulis alaribus vix ullis minutis subincrassatis pra... *haud plicata*, caviuscula, margine erecto *ubique* den... lato, nervis vix ullis, cellulis breviter linearibus viridi... *conspicuis;* perich. *parum exserta brevia, haud plic...* latius vaginanti-ovata longe tenuiter acuminata, la... reticulata, firmiuscula, eroso-denticulata; theca in p... *ascendente brevi, in angulo recto ab axi divergente l...* xuoso purpureo *turgide horizontaliter et breviter ov... acute conico-operculata aequalis fusca, dein brunnesc...* perist. *H. Cristae Castrensis*, sed minus, internum pa... dius et ciliis binis vel ternis.

Brid. II. p. 519. — *H. subrectifolium* Brid. II. p. 619. — *Crista Castrensis* Roth. Fl. Germ. III. p. 282 et al. — *H. Tom...* Brid. Musc. Rec. II. II. p. 123. — *H. compressum* Roth. l. c. p. ... — H. filicinum Cristam Castrensem repraesentans. Dill. Mus... 254. t. 36. f. 20. A?

Patria. Ad rupes praesertim calcareas, in ... pratis turfosis exsiccatis arborumque radices totius Eu... pae, Asiae borealis et Americae septentrionalis; e pla... tiebus in alpes ascendens. — *Auctumno et vere.*

148. **H. fastigiatum** Brid. (II. p. 620.); *dioicum... cespites turgidi subcompacti rubiginoso-virides;* ca... repens breviter pinnatus, ramulis *ascendentibus filifor... bus hamulosis rigidis fastigiatis valde flexuosis;* fo... caulina *densissime imbricata maxime falcato-secund... mata*, anguste lanceolata longe tenuiter acumina... cata, subintegerrima concava, margine ubique ... nervis *vix ullis*, cellulis *veluti conflatis chlorophyllos... ridibus*, alaribus *paucissimis quadratis minutissimis gr... nulosis;* perich. stricta longe lanceolato-acuminata su... plicata tenuiter laxe reticulata subintegerrima pallida; theca in ped. longiusculo rubiginoso laevi inclinata an... guste arcuato-cylindracea, ore constricto majori humore aequali, rubiginosa, operc. *breviter conico;* perist. d. ext. breviusculi pallidi, int. aequilongi flaviduli vix perforati laeves, ciliis binis separatis tenuissimis parum brevioribus interpositis.

Hypnum Stereodon fastigiatus Brid. II. p. 620. — *H. mamillatum* Fk. in sched. Forte quoque Br. et Sch. — *H. cupr. κ. mulosum* Brid. II. p. 610. — *H. cupr. μ. crispatissimum* l. c. — *. cupr. σ. fragile* l. c. p. 611. — *H. cupr. τ. conicum* l. c. — *. cupr.* var. capsulis inclinatis Hook. in Drumm. Musc. Amer. . 206.

Patria. In regionibus alpinis praesertim calcareis ustriae, ubi pr. Sanct Gertrud im Martellthal Tirolis erid. detexit Funk 1826, Bavariae, Helvetiae, in alpiis Julicis et in America septentrionali. In altit. 7000' ed. observatum. — *Julio, Augusto.*

Caracteribus datis cum nulla specie alia confundenda. los masc. minutus, fol. late ovatis, breviter acuminatis llidis.

149. **H. falciforme** Dz. et Molkb. (Ann. sc. nat. 44. 4. p. 306.); *monoicum;* prostratum subpinnatim raosum robustum, ramis divaricatis remotis flexuoso-curatis subsimplicibus apice attenuatis, foliis *squarrosulo-ecundis* haud appressis indistincte deplanatis, *rigidis* ordide lutescentibus splendentibus; folia caulina dense ubricata falcato-*subsecunda, late oblongo-lanceolata, umine lato obliquo v. falcato brevi*, margine ubique ecto superne subdenticulato, *caviuscula*, nervis breusculis tenuibus, nitidis, cellulis angustissime linearibus bconflatis subserpentinis veluti striatulis sordide luscentibus, alaribus vix ullis; perich. *numerosa valde rserta maxima late vaginantia et longissime flexuose riformi-acuminata denticulata;* theca in ped. longissimo evi purpurascente valido rigido *magna turgide ovalis revicolla* horizontalis late annulata, operc. conico acumiato recto, humore depresso; perist. magni d. ext. lutei, tus tenuiter uncinate cristati, carnosi, interni aequilongi viduli rugulosi pertusi, ciliis binis conflatis rugulosis bidis vix brevioribus; calyptra sparse pilosa.

Patria. Java, monte Patocha, unde habemus, Sumatra et Borneo: Hb. Lugd. Batav.

Ab *H. intorquato* proximo vestigiis descriptis differt.

150. **H. intorquatum** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 307.); *dioicum;* laxe cespitosum decumbens vage ramosum, ramulis inaequalibus apicem versus haud brevioribus inaequaliter pinnatum, sordide viride flexuosum nitidum latiuscule complanatum; folia caulina laxe conferta, e basi *leviter arcuato-constricta ubique profunde concave subcomplicate* late lanceolato-acuminata breviter reflexo-falcata, margine erecto apice subdenticulato, nervis brevibus obsoletis, cellulis conflatis pallide viridibus maxime angustis, alaribus vix ullis vesiculaeformibus pellucidis; perich. late vaginantia plicata longissime acuminata multo laxius reticulata pellucida, *margine dentibus in cilia longissima filiformia articulata productis fimbriata, ext. minora et erose denticulata;* theca in ped. longissimo horizontalis v. nutans subcylindrica, operc. convexo breviter rostrato incurvo, *calyptra sparse pilosa.*

Patria. Sumatra, Java, monte Patoeha.

Fructum non vidimus. Ex habitu *H. curvifolio* haud dissimile, sed notis laudatis distinctissimum.

151. **H. globitheca** C. Müll.; *monoicum; H. fertili* simillimum; folia caulina *profunde concava angustiuscule lanceolato-acuminata* falcata, *denticulata,* nervis brevibus *distinctis pallidis,* cellulis mollibus pellucidis subchlorophyllosis, alaribus *vix ullis pellucidis fugacibus;* perich. *H. fertilis,* sed brevius acuminata, haud plicata; theca in ped. longissimo *tenui* aurantiaco laevi substrictissimo horizontalis *turgide globosa majuscula,* sicca ore constricta, humore aequalis, aurantiaca, operc. depresso recte acuminato, annulo latiusculo; perist. d. ext. latiusculi longi flavidi apice pellucidi, int. parum breviores lutei *recedentes,* ciliis binis brevioribus subalbidis subrugulosis.

Patria. Venezuela, prov. Caracas, prope Galipan, alt. 5000 ped., Januar. 1845: Funck et Schlim in Coll. Linden. No. 350 ex parte.

Flores masc. creberrimi. Quoad thecam globosam magnam ab omnibus congeneribus primo adspectu distinguitur.

152. **H. monumentorum** Duby (in Moritzi Syst. Verz. d. Zoll. Pfl. p. 132.); monoicum; late prostratum arcte *depressum tenerrimum minutum* vage intricato-pinnatum, virescens; folia caulina densius imbricata, anguste lanceolato-acuminata falcata, profunde concava, summo apice subdenticulata, margine ubique erecto, nervis *vix conspicuis*, cellulis elongatis *mollibus pellucidis, haud conflatis, basi laxiusculis*, alaribus utrinque singulis vesiculaeformibus pellucidis fugacissimis; perich. falcata parum longius acuminata; theca in ped. *brevi* laevi rubro horizontalis v. nutans *minutissime ovalis*, ore coarctata, brunnescens, minute annulata, operc. conico *mucronulato*; perist. d. ext. minuti angustissimi, intus valde tenerrime cristati, pallidi, int. solidi angustissimi flavidi, ciliis singulis interjectis.

Patria. Java, in cimeterio Buitenzorg, monumentis van Kuhl et van Hasselt arcte adhaerens: Zollinger No. 1537.

H. ichnotoclado haud dissimile, caracteribus autem accuratius laudatis species distinctissima.

153. **H. ichnotocladum** C. Müll.; *dioicum*; latissime cespitosum *longe repens* prostratum *gracile sordide viride* inaequaliter breviter pinnatum; folia caulina anguste lanceolata acuminata falcata, caviuscula, margine erecto superne denticulato, nervis brevibus *distinctis viridiusculis tenuibus*, cellulis viridibus densissimis subconflatis, alaribus vix ullis pellucidis fugacibus; perich. late vaginantia reflexa longe acuminata, basi laxius reticulata, denticulata; theca in ped. *breviusculo brunnescente* horizontalis *parvula ovalis aequalis brunnescens*, operc. conico acuto brevi, annulo parvulo; perist. minutum, ext. flavidum, int. aequilongum fuscidulum perforatum ciliis aequilongis albidis *solitariis*.

Hypnum Chamissonis Mont. in Hb. Miquel.

Patria. Java, prov. Buitenzorg: Miquel Hb.

H. intorquato haud dissimile, sed toto coelo structura interna et ramis gracilibus distans et notis laudatis pro-

ternum fuscidulum, ciliis brevioribus 1—2 albidis sin-
gulosis conflatis.

H. cyparissoides Wils. in Gardner Musc. Bras. No. 111!

Patria. Brasilia, ad lapides m. Corcovado: Gar-
ner No. 111.

Ab *H. cupressiformi* notis lautatis facillime di-
guitur.

158. **H. aeruginosum** C. Müll.; *monoicum; H.*
pressoidi proximum, *sed decumbens, haud prostra-*
molluscoides, inferne ochraceum, superne aeruginos-
ride; folia perich. *in pilum elongatum nodosiuscul*
xuosum, e cellularum incrassatarum longarum seri
duabus compositum producta; pedunculus *elongatus;*
rist. interni ciliis *binis separatis.*

Hypnum cupressoides C. Müll. in Linn. XIX. p. 220 n.
Zeit. 1848. p. 781.

Patria. Venezuela, prov. Caracas, Galipan,
5000, terrestre: Dr. Karsten, dein Funck et Sch
in Coll. Linden. No. 347. *Januario.*

Ab *H. mollusco* habitu valde simili jam thecae
refugit. Theca annulata?

159. **H. cyparissoides** Hsch. (Fl. Bras. I. p.
monoicum; surculus 1—2 uncialis rufus ascende
quoties divisus, ramis erectis subpinnatis, ramulis
bus subsecundis; folia caulina dense imbricata
subfalcata oblonga acuminata obliqua integerrima
via (?) concava, laete virentia, cellulis linearibus
fertis; perich. intima lanceolata longissime acuminata
vaginata, margine inflexa, *plicata*, exteriora ovata
v. oblongo-acuminata concava; theca in ped. uncial
cto subflexuoso laevi purpurascente, apice parum inc
sato et incurvo nutans v. cernua obconica, deoperc
oblonga laevis brunnea, ore purpureo, operc. hemisph
rico brevirostro; perist. *H. cupressoidis.* †.

Patria. Brasilia, in districtu adamantium, Maj.
Martius.

H. recurvanti auctor comparavit, *H. cupressoidi* proximum tamen et notis illustratis sat distinctum videtur.

160. **H. apiculatum** Hsch. (Fl. Bras. I. p. 87.); *monoicum;* repens vage ramosum, ramulis subaequalibus apicem versus sensim brevioribus pinnatum, tenellum molle luteum; folia caulina lanceolato-acuminata falcata, *basi subrotundata, interdum* subconstricta *caviuscula,* margine erecto *inferne subdenticulato superne serrulato,* nervis distincte conspicuis flavidis subaequalibus brevibus, cellulis elongatis angustissimis densis viridibus, alaribus subnullis; perich. vaginantia erecta apice recurvata longissime acuminate argute serrulata laxius reticulata; theca in ped. longiusculo tenerrimo purpureo laevi obovata truncata subaequalis cernua interdum subpendula, deoperculata ore valde constricta urceolata rugulosa fusca, exannulata (?), operc. hemisphaerico apiculato pallidiori; perist. d. ext. late lanceolato-subulati, int. in membrana lutea solidi, ciliis interjectis.

Patria. Brasilia, pr. Tijuca et in monte Corcovado, in vicinia Sebastianopoleos: Olfers; pr. Salgado ad flum. S. Francisci in prov. Minarum, Septembri: Martius.

H. mollusco habitu simile; *H. aeruginoso*, a quo notis cursive impressis differt, foliis subplanissimis, basi late truncatis distat. Fructum non vidimus.

161. **H. Chamissonis** Hsch. (Hor. Phys. Berol. p. 66. t. 13, sed partibus omnibus robustius delineatum!); *monoicum;* latissime cespitosum *luteo-viride* molluscum subsericeum, longe repens, ramis subaequalibus patentissimis teneris apicem caulis versus sensim brevioribus pinnatum; folia caulina laxe conferta valde secunda, e basi plerumque latiore truncata *anguste* lanceolato-acuminata falcata planiuscula, margine plano ubique subdenticulato, nervis brevibus *distinctis* pallidis, cellulis angustissime elongate linearibus pellucidis *distinctis*, alaribus vix ullis vesiculaeformibus pellucidis fugacibus; perich. latiora vaginantia longius acuminata vix falcata; theca in ped. *tenuissimo* longiusculo purpurascente laevi nutans

minutissima vix conspicua urceolata, sicca ore maxime constricta, fuscidula annulata, operc. e basi depressa obliquo brevirostri; perist. minuti dentes ext. angusti pallidi aciculari-subulati, int. *angustissimi imperforati* subaequilongi fusciduli, in membrana *brevi* positi, ciliis *solitariis subrudimentariis.*

Hypnum (*Stereodon*) *Chamissonis* Brid. II. p. 617.

Patria. In arboribus insulae Radack: A. de Chamisso.

Ab *H. aeruginoso* simillimo notis illustratis differt.

162. **H. dealbatum** Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 729. 1827!); *monoicum*; procumbens vage ramosum, ramis *flaccidis teneris mollissimis pallidis laxifoliis* inaequalibus subsimplicibus, *compressis parum cupressiformibus;* folia caulina *pallide viridia laxissime imbricata tenera angusta lanceolata acuminata parum* falcata, superne denticulata, caviuscula, nervis tenuissimis pallidis breviusculis, cellulis *pallidissimis* angustissimis, alaribus *obsoletis vix ullis vesiculaeformibus* pellucidis; perich. late vaginantia in acumen longissimum subfalcatum subdenticulatum producta, laxe reticulata, subenervia; theca in ped. elongato laevi purpureo tenui nutans obovata, deoperculata urceolato-oblonga, laevis badia, operc. elongate conico acuto; perist. d. ext. late lanceolati subulati badii, int. lutescentes, aequilongi, ciliis solitariis albescentibus, apice interdum subhiantibus.

Hypnum ochron Schwägr. Suppl. III. II. 2. t. 285. (1830.)! – *H. Vriesii* Dz. et Molkb. in sched. e monte Sakoenbang Javae.

Patria. Java, ubi detexit Reinwardt.

Flos masc. minutissimus, femineus turgidus. Ob vestigia cursive impressa facile discernibile. *H. graciliseto* haud dissimile.

163. **H. incubans** Hsch. et Reinw. (in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 730.); *H. dealbato* simile, sed viride et brevius ramosum; folia caulina *e basi late truncata, inde plerumque valde coarctatâ longius et*

stincte falcato-acuminata superne distinctius dentata; rist. d. int. imperforati, ciliis binis conflatis albidis.

Patria. Java: Reinwardt.

H. dealbati forsan varietas.

Species steriles tantum notae.

164. **H. regulare** C. Müll.; *caulis flavidus conspi-us, prostratus elongatus flaccidus, ramis laxe approxi-atis permultis subaequalibus brevibus gracilibus subpla-ssimis lutescentibus patentissimis eleganter pinnatus;* lia caulina dense conferta, anguste lanceolata falcata, ice denticulata, cellulis subconflatis pallidis, alaribus *x ullis minutissimis*, margine *ubique erecto*, nervis evibus obsoletis.

Hypnum (Stereodon) cupressiforme ζ. regulare Brid. II. p. 609.

Patria. Insula Bourbonis, ad terram et in caudici-is palmarum: Bory St. Vincent.

Ex habitu eleganter pinnato *Vesicullariis* aemulans et otis cursive impressis ab *H. cupressiformi* longissime fugiens. Sterile tantum vidimus.

165. **H. viridulum** Brid. (Mant. Musc. p. 179.); *te-uissimum exiguum* repens, ramis *brevissimis viridulis* anissimis; folia caulina *minuta, lanceolata breviter acu-inata, parum falcata*, caviuscula, tenuiter subdenticu-ata, nervis brevissimis viridulis saepe obsoletis, cellulis iridibus, *alaribus vix ullis minutis pellucidis.*

Hypnum (Stereodon) leptorrhynchum β. viridulum Brid. II. . 622.

Patria. Insula Bourbonis: Bory St. Vincent.

Ab *H. leptorrhyncho* parum affini notis explicatis oto coelo differt. Ab *H. regulari* proximo exiguitate, olore et foliis parum falcatis jam primo adspectu distin-uitur. Sterile tantum observavimus.

C. *Cellulae alares distinctae vesiculaeformes.*

a. *Folia caulina margine plus minus revoluto.*

166. **H. recurvans** Schw. (Suppl. II. II. p. 289. t. 16.); *dioicum;* late cespitosum procumbens depressum

laete viride v. flavescens nitidulum, ramis *brevibus intertextis* latiuscule complanatis; folia caulina dense imbricata *parum secunda*, e basi parum constricta latiuscule ovato-lanceolata superne subdenticulata, acumine flexuoso plus minus longo et falcato *summo apice praesertim serrato* terminata, margine ubique fere parum reflexo, nervis *obsoletis flavidis*, cellulis pallidis *basi flavidis*, alaribus *globosis turgidis flavidis superioribus paucis laxis pellucidis;* perich. latiora vaginantia, *basi laxe reticulata et flavida*, margine magis reflexo, apice serrata; theca in ped. mediocri purpureo laevi inclinata *turgide ovalis brevis* subcernua aequalis fuscidula, *exannulata*, operc. turgide conico oblique subulato leptodermi; perist. d. ext. pallidi lati longi, int. subaequilongi pallide luteoli subrugulosi imperforati, ciliis *solitariis* latiusculis brevioribus subrugulosis interpositis.

Hypnum (*Stereodon*) *recurvans* Brid. II. p. 614. — *Leskea recurvans* Mich. Fl. Am. Bor. II. p. 311. — *L. squarrosa* Mich. l. c. p. 312. — *L. arcuata* Brid. Sp. Musc. II. p. 54.

H. amoenum Hook. in Drumm. Musc. Am. No. 196! — *H. recurvans* var. Sulliv. Musc. Allegh. No. 18. — *H. cupressetorum* Brid. II. p. 409!

Patria. America septentrionalis, ubi in Carolina detexit Michaux, in monte Grandfather Carolinae superioris: Sullivant, in Pensylvania: Mühlenberg, in republica Massachusets: Dewey, e Florida habemus: in insula Terre Neuve: La Pylaie. Haud rarum videtur.

Ab *H. cupressiformi* notis cursive impressis longe refugit.

167. **H. cylindricarpum** C. Müll.; *dioicum;* cespites late *prostrati appressi luteo-virides, haud sericei;* caulis repens vage ramosus, ramis inaequalibus *gracilibus compressis;* folia caulina erecto-patula, parum falcato-secunda, *longe anguste lanceolato-acuminata curvato-falcata, acumine tenui longo subdenticulato*, concava, margine inferne vel ubique fere parum reflexo, nervis *obsoletis*, cellulis linearibus virescentibus, *basi flavidis*, alaribus *superioribus paucissimis quadratis pellucidis*, in-

ferioribus utrinque ternis parvis subglobose vesiculaeformibus flavidis; perich. majora robustiora erecta, magis dentata, basi laxe flavide reticulata; theca in ped. *elongato* purpureo laevi erecta, *elongate cylindrica angusta* fuscidula leptodermis, exannulata, operc. *conico oblique subulato longiusculo;* perist. d. ext. longiusculi lutei, apice serrulato-hyalini, int. aequilongi laeves in membrana *robuste reticulata* flavidà angusti pertusi, *latere angustissime limbati robuste articulati* laeves flavidi, ciliis *nullis v. rudimentariis brevissimis.*

Leskea polyantha var. Sulliv. Musc. Allegh. No. 60. — *L. tenuirostris* Br. et Sch. in litt. ad Sullivant!

Patria. Ad imum scopulum Table Mountain dictum Carolinae superioris, in truncis prostratum: Sullivant, qui et ex Ohione quoque nobis benevole misit.

Notis cursive impressis ab *H. polyantho* toto coelo differt et *H. recurvanti* haud dissimile.

168. **H. Duisabonae** C. Müll.; *monoicum;* caulis repens homomallophyllus arcte adhaerens subtus radiculosus, ramis erectis vix curvatis *valde compressis pseudo-complanatis vix homomallophyllis e luteo fulvescentibus* brevibus v. altiusculis subsimplicibus; folia caulina *laxe patentia* subsecunda latiuscule ovato-acuminata, integerrima, concava, margine *convexo-revoluto veluti erecto,* nervis brevissimis flavidis, cellulis *H. Loxensis;* perich. anguste lanceolata longius acuminata profunde concava, basi laxe et flavide reticulata; theca et peristom. *H. Loxensis.*

Leskea Duisabonae Mont. Ann. d. sc. nat. 1845. 4. p. 97.

Patria. Ad caules *Macromitrii Mauritiani* adrepens in insula Mauritii leg. Duisabo.

Ab *H. Loxensi* affini notis cursive impressis prorsus recedit.

169. **H. propinquum** Harvey (in Hook. Ic. Pl. Rar. t. 24. et Lond. Journ. of bot. 1840. 2. p. 19.); *monoicum?* caulis longiuscule repens, radiculis *stellatim dispositis* adhaerens, filiformis foliosus deplanatus flexuosus, ramis

brevibus simplicibus *curvatis* complanatis *luteo-fulvis*; folia caulina falcato-secunda conferta, *late ovato-lanceolata* acuminata, acumine latiusculo breviusculo denticulato falcato, margine erecto v. indistincte reflexo, planiuscula, *superne subplicata*, nervis obsoletis, cellulis elongate linearibus subconflatis pallidissimis v. lutescentibus, basi flavidis, alaribus superioribus paucissimis late quadratis pellucidis, inferiorib. parvis vesiculaeformibus utrinque quaternis flavidis; theca inclinata cylindracea, operc. e convexo longirostro.

Patria. India borealis.

Fructum non vidimus. *H. recurvanti* haud dissimile.

170. **H. curvulum** Hook. (Ic. Pl. Rar. t. 23. f. 7.–Harvey in Lond. Journ. of bot. 1840. p. 18.); *monoicum?* cespitosum; caulis erectus vage ramosus, ramis brevibus indistincte deplanatis curvulis lutescentibus; folia caulina *H. propinqui, sed cellulis distinctis haud conflatis, nervo distinctis brevissimis;* theca in ped. brevi subinclinata *ovato-oblonga*, operc. recte rostrato.

Patria. Nepal.

H. propinqui forsan varietas. Incompletum et sterile tantum vidimus.

171. **H. Schlimii** C. Müll. (Bot. Zeit. 1848. p. 781.); *monoicum;* procumbens vage ramosum *tenellum humile albide viride*, ramis brevibus; folia caulina laxiuscule conferta, e basi subconstricta *anguste lanceolata, acumine elongato* parum falcato subdenticulato, *margine paulisper revoluto, cymbiformi-concava*, nervis obsoletis flavidis, cellulis pallidis basi flavidis, alaribus *vesiculaeformibus flavidis;* perich. longius acuminata *dentata angustissima*, basi laxius et flavide reticulata; theca in ped. breviusculo ascendente purpurascente laevi *horizontalis, minute gibboso-obovata pallide ochracea*, operculo *turgide conico aurantiaco longe aciculari obliquo*, deoperculata sicca subarcuata, ore constricta, *aurantiaca;* perist. *minuti* d. ext. pallide lutei, int. breviores flavidi, ciliis *solitariis* brevioribus.

Patria. Venezuela, prov. Caracas prope Galipan, t. 5000 ped., in arborib. putridis: Funck et Schlim Coll. Linden No. 354. Januario 1845.

Habitus *H. cupressiformis* minoris, theca *H. mollusci*, ed multo minor, diverse colorata et operculo aciculari. otis cursive impressis facile discernibile.

172. **H. Gueinzii** Hmp. (Ic. Musc. t. 12); *monoi-m;* laxiuscule cespitosum procumbens vage ramosum, mis angustiuscule complanatis luteo-viridibus brevius-lis caudaeformibus curvulis simplicibus; folia caulina *basi angustius constricta anguste lanceolato-acuminata lcata profunde concava*, denticulata, margine basi pa-m revoluto, nervis obsoletis brevissimis *flavidis*, cellu- virescentibus submollibus *basi flavidis*, alaribus *ma-scudis longiuscule vesiculaeformibus pellucidis v. flavi-dis;* perich. latius vaginantia *ovato-lanceolata, acumine evi parumque reflexo*, margine erecto v. subinvoluto perne dense eroso-*serrulato*, nervis obscuris flavidis ngiusculis, cellulis basi laxis flavidis; theca in ped. *rie arcuato-flexuoso* purpureo laevi breviusculo *incli-ata plus minus nutans* minutiuscule *obovalis, ore valde nstricta* fuscidula pachydermis, operc. conico *longe ob-que rostrato purpurascente, annulo nullo; perist. H. ptocarpi.*

H. cupressiforme var. Hsch. in Drègei Musc. Cap.

β. prostrata; viridis sordida, folia robustiora minus lcata.

Patria. Prom. b. spei, ubi locis haud designatis pri-us legit Drège; Port Natal: Gueinzius. Var. *β.* ad uncos arborum, ut videtur aqua irroratos, pone Swel-ndam, Oct. 1834: Pappe.

Ab *H. cupressiformi* notis laudatis differt.

b. *Folia caulina margine erecto.*

a. *Tenella.*

α. Pedunculus laevis.

173. **H. Dregei** C. Müll.; *monoicum; H. Gueinzii* imillimum, sed folia *angustissime lanceolata longe fal-*

cato-acuminata planiuscula, margine apice denticulato, *ubique erecto*, cellulis *pallidis*, alaribus parum minoribus *semper flavidis;* perich. *longissime subfiliformi-acuminata enervia denticulata*, margine *subrevoluto*, cellulis alaribus maximis subpellucidis, caeteris basilaribus flavidis laxis; theca in ped. magis erecto pendula *oblonga* ore constricta exannulata; operculum et peristomium *H. Gueinzii.*

Hypnum 8048: Drège.

Patria. Prom. b. spei, in locis non indicatis: Drège; pr. Philippstown: Gueinzius; pr. Zwellendam: Pappe.

174. **H. gracilisetum** Hsch. et R. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 727.); *monoicum;* longe repens, ramis prostratis deplanatis teneris flavescentibus nitidis parce divisis brevibus intertextis subpinnatim vage ramosum; folia caulina parum falcato-secunda, laxe imbricata, *e basi in collum longiusculum angustum coarctata*, cellulis alaribus parvulis *ternis teneris veluti obsoletis pellucidis v. subflavidis* praeditâ anguste oblonga, acumine breviusculo falcato, margine erecto superne tenuiter denticulato, cellulis pallide luteolis veluti conflatis, basi parum flavidis, nervis obsoletis; perich. erecta longissime acuminata vaginantia denticulata; theca in ped. *creberrimis longissimis subtenuissimis arcu maximo flexuosis* laevibus purpureis *minute obovata suberecta inaequalis*, orificio saepe oblique posito, fusco-badia, exannulata (?), operc. concolori *minute conico acuto;* perist. d. ext. fuscescentes, int. aequilongi latiusculi solidi flavidi, ciliis 1—2 aequilongis albidis.

Schwägr. Suppl. III. I. 1. t. 220.

Patria. Java, monte Patua: Reinwardt.

Ramis tenuibus veluti squarrosulo-foliosis planis luteolo-splendentibus, pedunculis et theca species facile cognoscenda, a Schwägrichen hermaphrodita false observata.

175. **H. cyparoides** Brid. (Musc. Rec. II. II. p. 138. t. 3. f. 4.); *monoicum; pusillum tenellum* depressum vage ramosum *sordide lutescens*, ramis brevibus *tenuibus te-*

neris subsimplicibus planis irregulariter pinnatum; folia caulina *angustissime lanceolata, in acumen tenuissimum elongatum subulatum valde falcatum subintegerrimum producta, planiuscula*, pallide lutescenti-areolata, cellulis basi flavidulis, *alaribus utrinque ternis majusculis vesiculaeformibus flavidis*, nervis vix ullis flavidis; perich. late vaginantia acuminata erecta denticulata; theca in ped. *tenuissimo breviusculo* laevi rubiginoso horizontalis v. nutans *minute ovalis*, ore constricta, deoperculata aequalis, exannulata, operc. *turgide conico longe aciculari flexuoso vix conspicuo tenuissimo;* perist. minuti d. ext. pallide lutei, int. aequilongi, ciliis tenuissimis singulis interpositis.

Hypnum (Stereodon) leptorrhynchum Brid. II. p. 621. ex parte. — Schw. Suppl. I. II. p. 295. t. 93.

Patria. Nova Hollandia: La Billardiere ad arbores legit.

Exiguitate et notis illustratis facile discernibile. Flores masc. minutissimi, in vicinia feminei, plures.

176. **H. leptorrhynchum** Brid. (II. p. 621, ex parte, sub Stereodonte); flos masculus et habitus *H. cyparoidis*, sed pallidius luteum, folia *profunde concava, in subulam latiorem denticulatam saepe varie flexuosam* falcatam producta; perich. magis denticulata; pedunculus *longissimus*, theca *angustissime cylindraceo-oblonga;* caetera *H. cyparoidis.*

Patria. Insula Bourbonis: Bory St. Vincent ad terram legit.

177. **H. callidum** Mont. (Ann. d. sc. nat. 1845. 4. p. 90.); *monoicum; H. leptorrhyncho* simillimum; rami deplanati quidem, *sed turgidiusculi haud plani*, lutescentes; folia *in subulam longissimam tenuissimam subintegerrimam* valde falcatam *haud flexuosam* producta, cellulis alaribus *pellucidis;* perich. late convolutacea ovata breviter acuminata, cellulis incrassatis conflatis, basi laxioribus flavidis creberrimis; theca in ped. *breviusculo* cylindraceo-oblonga; caetera *H. cyparoidis.*

182. **H. constrictum** C. Müll.; caulis procumbens divisus ramosus, ramis vagis ascendentibus compressis apice leniter incurvis; folia caulina densiuscule imbricata, subsecunda, *ovato-lanceolata acuminata, integerrima*, laevia, prorsus enervia (?), luteo-viridia, nitentia, tenerrime oblongo-areolata; perich. parva ovata acuta enervia; theca in ped. erecto rufescente scabriusculo *erecta* ovata, ore paulum constricta, ferrugineo-fusca; perist. d. ext. succinei, int. albidi. †.

Leskea constricta Brid. Sp. Musc. II. p. 79 et Br. univ. II. p. 290.

Patria. Insula Bourbonis: Aubert du Petit Thouars.

H. Borbonico proximum et caracteribus supra expositis specifice diversum videtur.

b. *Robustiora.*

183. **H. amoenum** Hdw. (Sp. Musc. p. 292. t. 77.); *monoicum; intertextum repens vage ramosum, ramis brevisculis subdecumbentibus valde uncinatis sordide viridibus;* folia caulina *maxime falcato-secunda,* e basi subconstricta anguste lanceolata longe falcato-acuminata *subintegerrima,* concava, margine erecto, nervis obsoletis, cellulis pallidis subconflatis, basi flavidis, alaribus *magnis* turgidis *pellucidis;* perich. late ovato-acuminata superne denticulata; theca in ped. *crasso brevisculo arcuato-flexuoso* rigido laevi aurantiaco horizontalis ovalis parvula, *basi annulari-strumosa* pachydermis.

Isothecium amoenum Brid. II. p. 382, excl. planta Humboldtiana Andensi.

Patria. Nova Seelandia: Banks? in Hb. Hedwigiano; insula Eremitae ad Cap. Horn: J. D. Hooker.

Theca deoperculata hucusque observata. Notis cursive impressis primo momento ab omnibus congeneribus distat.

184. **H. leptocarpon** Schw. (Suppl. II. II. 2. p. 171. t. 200.); *monoicum;* dense cespitosum decumbens intertextum, ramis vagis brevibus irregulariter dispositis la-

tiuscule complanatis apice vix secundis sordide viridibus nitidulis; folia caulina dense conferta *vix secunda, anguste oblonga, apice sinuate constricta et acumine elongato flexuoso subdenticulato haud falcato latiusculo terminata, margine hic illic involutaceo*, nervis obsoletis, cellulis pallidis elongatis densis, basi laxioribus flavidis, alaribus magnis vesiculaeformibus hyalinis; perich. caulinis similia, sed latius vaginantia, laxius reticulata et acumine breviori dense serrulato terminata; theca in ped. elongato rigido purpureo, *in collum longiusculum subscabrum arcuatum incrassato* crassiusculo *maxime pendula ad pedunculum appressa, anguste cylindraceo-clavata, ad collum triplare annulate callosa*, fuscidula, exannulata pachydermis, operc. *longe aciculari flexuoso;* perist. d. ext. breves densissime approximati carnosi, int. in membrana flavida *densissime transversali-striata maxime compressi angustissimi* solidi aequilongi tenues, ciliis solitariis pellucidioribus tenuissime subulatis basi latioribus.

Leskea cirrhifolia Mont. (non Schw.) in Hb. Miquel. — *Hypnum cylindricum* Hsch. et Reinw. Nov. Act. Acad. Caes. Leop. XIV, 2. Suppl. p. 728. (1829.).

Patria. Java, prov. Buitenzorg: Miquel benevole communicavit.

Flos masc. minutissimus vix notabilis. Species quoad caracteres explicatos distinctissima memorabilis et facillime discernibilis.

185. **H. Molkenboerianum** C. Müll.; *monoicum;* longe prorepens flexuosum vage ramosum, ramis assurgentibus subsimplicibus sordide flavidis nitidis *latiuscule* complanatis, brevibus subcurvatis; folia caulina laxe falcato - subsecunda vel inflectentia late ovato - lanceolata acuminata, acumine *tenuiter subulato* denticulato *subfalcato*, margine erecto, nervis obsoletis, cellulis pallidis angustissime linearibus basi flavidis, alaribus inferioribus magnis vesiculaeformibus flavidis haud constrictis, superioribus paucis laxis pellucidis; perich. late vaginantia longe acuminata stricta laxius reticulata, basi flavida;

theca in ped. elongato flexuoso purpurascente laevi erecta v. parum inclinata *majuscule* oblongo-cylindrica pachydermis fuscidula, operc. conico-rostrato obliquo; perist. d. ext. late lanceolati subulati elongati flaviduli, int. in membrana brevissima aequilongi externis subadnati flavidi latiusculi, perforati, ciliis rudimentariis solitariis.

Leskea falcata Dz. et Molkb. Ann. d. sc. nat. 1844. 4. p. 310.

Patria. Borneo.

Flos masc. minutus, plerumque abortus, foliis obtuse ovatis. *H. neckeraceo* simillimum, sed notis cursive impressis distans.

186. **H. neckeraceum** C. Müll.; *dioicum; H. Molkenb.* simillimum, sed *angustius* complanatum; folia caulina *latiuscule haud subulate acuminata, vix falcata;* theca minor.

Neckera curvirostris Schwägr. Suppl. III. I. 2. t. 230.

Patria. Nepal.

Partibus plurimis cum *H. Molkenboeriano* posterius detecto et descripto convenit, ut species haecce ulterior varietas *H. neckeracei* habenda sit, si *H. neckeraceum* monoicum inventum esset.

187. **H. circinale** Hook. (Musc. Ex. t. 107.); longissime repens flexuosum, ramis numerosis horizontalibus brevibus gracilibus lutescenti-viridibus vix semiuncialibus subsimplicissimis dense et eleganter pinnatum; folia caulina secunda anguste lanceolata longe subulata falcata, inferne concava, superne plana, apice subserrata, cellulis pallidis subconflatis, basilaribus et alaribus *vesiculariformibus* aurantiacis; perich. erecta magis serrata; theca in ped. *brevi* vix unciali erecto flexuoso laevi rufo-fusco *cernua subgloboso-ovalis parvula*, operculo conico brevi; perist. minutum, dentibus internis flavidis imperforatis, ciliis 1—2 aequilongis tenuissimis.

H. (*Stereodon*) *circinale* Brid. II. p. 621.

Patria. In arboribus in plaga occidentali Americae meridionalis: **Menzies 1793.** E Chile habuit **Hampe.**

Ramus ic. Hookerianae, sub n. 2 delineatus, alius antae videtur. Ab *H. imponente* haud dissimili vestiis laudatis jam differt.

Species incertae sedis.

188. **H. leucotrichum** Tayl. (Lond. Journ. of bot. 3i8. p. 196.); caulis longissimus ultrapedalis prostratus, mis brevibus densis patentibus complanatis incrassatis, ice arcte convolutis, *dense pinnatus veluti pectinatus, ice simplici elongato remotifolio; rami juniores foliis nsis apicem perichaetia brunnea veluti referentem sientibus;* folia lucida imbricata, caulina rara appressa, mea erecto-patentia, siccitate plicata, *rotundato-obnga elongate apiculata pilifera, pilo subdenticulato, convissima, mediotenus tenuinervia.* †.

Patria. Monte Pichincha: W. Jameson Febr. 1847. erile legit.

H. palustri affine appellatur. Species distinctissima racteribus explicatis videtur.

189. **H. drepanophyllum** C. Müll.; caulis procumens ramosus, ramis pinnatis diffusis; folia arcte imbriata ovato-acuminata concava falcato-secunda integerma enervia; perich. parva subulata recta; theca in ped. pillari unciali erecta clavato-cylindracea ferruginea nida. †.

Leskea uncinata Brid. II. p. 323. — *Hookeria uncinata* Sm. Trans. of the Linn. Soc. Lond. IX. p. 281. t. 33. f. 4.

Patria. Prom. b. spei: Menzies.

Statura *H. cupressiformis.*

190. **H. Sandwicense** Hook. et Arn. (in Bot. of Cap. eechey's Voy. 1841. p. 109.); rami pinnati; folia distia tenera nitida ovato-lanceolata acuminata, falcatoecunda, concava, *undique serrulata,* nervo *brevissimo bscuro;* theca breviter ovata cernua, calyptra juniore ice *pilosa.* †.

Patria. Insulae Sandwich: Lay et Collie in exed. annorum 1825—1828.

Ex animadv. auctorum *H. eleganti* haud dissimile, et *H. circinale* magis spectans, sed ob cellulas alares nobis ignotas incertae sedis, foliis uninervibus autem descriptis facile discernibile.

191. **H. multiflorum** Schw. (Suppl. I. II. p. 202.); caulis debilis biuncialis procumbens subdivisus; folia bifariam imbricata subsecunda patula ovato-lanceolata longe acuminata enervia pallide viridia; flores masculi copiosissimi. †.

Leskea multiflora Brid. II. p. 291.

Patria. Insula Bourbonis, ad terram.

Species incerta.

1. **Neckera incurvata** Hsch. (Fl. Bras. I. p. 53.); caulis repens complanatus, apice radicans, foliosus rubellus, interdum subpinnatim ramosus; folia caulina subdisticha homomalla erecto-patentia, late oblongo-ovata subobliqua acuta, apice serrulata, concava, luteo-viridia, nervis obsoletis, cellulis longissime et angustissime linearibus, basilaribus brevioribus laxioribus; perich. ext. latissime ovata acuminata integerrima, basi concava, apice recurvata, pellucida, interiora sensim angustiora longius acuminata, intima 5—6 oblongo-lanceolata, basi vaginata, longissime acuminata, laxius reticulata; theca in ped. erecto subunciali pallide luteo laevi parum flexuoso erecta magna subcylindrica, ore angustato fusco; peristd. ext. lanceolato-subulati, margine inaequali, nodosi trabeculati perpendiculari-exarati ferruginei, interni parum breviores, e basi latiore lineari-subulati, angustissime pertusi purpureo-ferruginei. †.

Patria. Brasilia: Pohl.

II. *Folia multifariam imbricata.*

Sectio IV. **Mallacodium.** Caulis dichotome vel pinnatim divisus, decumbens vel assurgens, *mollis*; folia *elongate pellucide areolata, nunquam papillosa et statu scarioso ipso mollia.*

Subsectio I. **Drepanocladus.** *Caules ramique uncinati, folia distincte falcata uncinata*, elongate lineari-areolata, laevia, uninervia.

192. H. riparium L. (Sp. Pl. p. 1595.); *dioicum;* cespites *laxissime intertexti* molles latissimi virides v. lutescentes; caulis longissime repens, ramis longiusculis flexuosis *flaccidissimis laxissime foliosis* pinnatim divisus; folia caulina *remote disposita patentissima, saepius veluti bifariam imbricata*, vel subsecunda, *e basi ovata elongate lanceolato-acuminata stricta v. plus minus falcata, integerrima*, carinato-concava, margine erecto, nervo tenui ultramedio, cellulis angustis elongatis e lutescente pellucidis, alaribus submultis laxe quadratis pellucidis parum impressis, ad alas decurrentes dispositis; perich. appressa stricta breviora, anguste lanceolata, profunde concava, pellucidius et laxius reticulata, validius nervosa; theca in ped. mediocri rubente laevi inclinata, *plus minus cylindraceo-oblonga et arcuata*, fuscescens, annulata, operc. *conico brevissimo acuto;* perist. d. ext. lutescentes, apice subserrulati, int. flavi angusti perforati laeves, ciliis brevioribus ternis albis laevibus.

Brid. II. p. 348. — Hdw. Musc. Fr. IV. p. 7. t. 3. — *H. Kneiffianum* Schimp. in litteris! — *H. hornum* Web. Spic. Goett. p. 44? — *H. palustre nigrescens* etc. Vill. Pl. Dauph. III. p. 917? et *H. palustre lutescens* etc. p. 918? — *H. Sipho* P. B. Prodr. p. 70 et Brid. II. p. 391! vel *H. laxifolium* Brid. Sp. Musc. II. p. 94. — *H. flexipes* Brid. II. p. 419! — *H. oligophyllum* Brid. Musc. Rec. II. II. p. 181. — *H. riparium γ. oligophyllum* Brid. II. p. 414. — *H. longifolium* Schultz. Fl. Starg. p. 335. — *H. riparium δ. longifolium* Brid. II. p. 414. — *H. trichopodium* Schultz. Fl. Starg. p. 334. *H. riparium ε. trichopodium* Brid. II. p. 415. — *H. riparium ζ. homomallum* Brid. II. p. 415. — *H. riparium η. protense* Brid. II. p. 415. — *H. pallidum* Stark. in Brid. II. p. 414 sub *H. ripario β. pallido.* Sub nom. *H. pallidi* ab auctore Starke *H. riparium* sec. Hb. Bridel. et alia Hypna sec. Hb. alia edita sunt. — *Fissidens Weberi* Brid. Musc. Rec. II. I. p. 146. — *Skitophyllum Weberi* Lapyl. Journ. Bot. Desv. V. p. 62. — H. aquaticum flagellis et teretibus et pinnatis. Dill. Musc. p. 308. t. 40. f. 44. B. C. D.

Patria. Per totam Europam et Americam septentrionalem, ad ripas aquarum locisque aliis humidis, ligno saxisque adhaerens v. terram habitans. — *Vere.*

Varietates enumerare omnes, maxime inutile esset; nam caulis e forma typica falcatifolia densius imbricata ad formam tenerrimam laxissime patentifoliam subdistinctam transit. Notis cursive impressis a congeneribus sectionis suae facile distinguitur. Theca quoque variat e forma cylindrica arcuata, florem *Aristolochiae Siphonis* valde aemulante, usque ad formam turgide cernuo-oblongam.

193. **H. uncinatum** Hdw. (Musc. Fr. IV. p. 65. t. 25.); *monoicum;* cespites latissimi mollusci prostrati, e viridi lutescentes v. pallescentes; caulis decumbens vage ramosus; rami prostrati tenues flexuosi elongati *apice valde uncinati*, ramulis tenuibus apice uncinatis laxe pinnatim dispositis; folia caulina maxime falcato-secunda, e basi ovata in acumen longum *valde circinnato-falcatum* sensim attenuata, *pluries profunde plicata*, complicate concava, margine *convexo revoluto* vix conspicue denticulato, nervo tenui canaliculato in acumen evanido, cellulis *angustissimis linearibus virescentibus* elongatis, alaribus paucissimis vesiculaeformibus fugacibus, tenerrime membranaceis, plerumque hyalinis; perich. strictissima convolutacea *anguste longe lanceolato-vaginantia plicata* pallida subdenticulata, elongate laxius pellucide reticulata, nervo latiore canaliculato; theca in ped. longo purpureo laevi subvalido flexuoso suberecta, *longe cylindracea arcuata*, macrostoma, sicca ore valde constricta, aurantiaca, annulata, operc. conico brevi apiculato; perist. d. ext. robusti ferrugineo-lutei, int. flavi vix hiantes, laeves, ciliis 2 – 3 longis capillaribus albis subappendiculate nodosis laevibus.

H. Stereodon uncinatus Brid. II. p. 629. et var. *bicolor* p. 631 vel *H. bicolor* Fröhl. in Hb. Bridelii. — *H. contiguum* Nees ab Es. in Hüben. Musc. Germ. p. 676! — *Leskea Deinbollii* Sw., monente Hartm. Sk. Fl. Ed. 5. p. 332 ad *H. aduncum* pertinens, e spec. Hübener. in Finmarkia collectis, huc revocanda est.

Patria. Ad saxa et ligna putrida locis umbrosis v. humidis zonae montosae editioris usque ad alpinam per totam Europam, Americam et Asiam septentrionalem, us-

ie ad regiones arcticas et in antarcticis. — *Per totum nnum.*

Ab *H. fluitante* proximo caracteribus laudatis distat.

194. **H. fluitans** L. (Fl. Suec. p. 1074.); *dioicum! . uncinato* simillimum, sed ramis foliisque multo minus lcatis; folia caulina falcata, *haud circinnata, estriata, cellulis longioribus laxioribus pellucidis areolata;* perich. *latissime vaginantia, estriata, acumine brevi* stricto rminata, laxe reticulata, enervia v. obsoletinervia; theca *ubpyriformi-oblonga turgida horizontalis;* caetera *H. ncinati.*

Hdw. Musc. Fr. IV. p. 94. t. 36. — *H. Stereodon fluitans* rid. II. p. 626 et parte maxima quoque varietates sequentes. — H. rectum, vel fluitans, foliis oblongis angustis peracutis. Dill. Musc. 299. t. 38. — *Fontinalis fluitans* Lam. Fl. Franç. I. p. 64.

Patria. In paludosis atque turfosis praesertim plaitiei ad terram vel fluitans per totam Europam et Amecam septentrionalem, rarius tamen fructificans. — *Aetate.*

195. **H. aduncum** L. (Sp. Pl. p. 1592.); *monoicum! H. fluitanti* simillimum, sed folia e basi angusta, inde vata et in acumen falcatum attenuata, concava, estriata, rix denticulata, nervo subobsoleto, cellulis *angustis* pelucidis; perich. estriata, interdum obtusata, acumine terminata et ante acumen subsinuato-emarginata; caetera *H. fluitantis.*

Hdw. Musc. Fr. IV. p. 62. t. 24. — *H. Stereodon aduncus* Brid. II. p. 623. — *H. longisetum* Schl. Crypt. Helv. Exs. Cent. IV. No. 331 *H. stereodon aduncus δ. longipes* Brid. II. p. 625. — *H. flavescens* Schl. l. c. No. 34 fide Bridelii. — *Neckera adunca* Willd. Prodr. Fl. Berol. No. 937. — Hypnum palustre erectum summitatibus aduncis. Dill. Musc. p. 292. t. 37. f. 26.

Patria. Per totam Europam, locis turfosis praesertim planitiei sylvarumque montosarum. — *Aestate.*

Ab *H. fluitante* vix, nisi inflorescentia monoica, liffert.

196. **H. revolvens** Sw. (Musc. Suec. p. 38. t. 7. f. 4!); *monoicum;* caulis elongatus, foliis *densis maxime*

aequaliter et eleganter circinnato-falcatis ubique [illegible] *lis robustus*, ramis inaequaliter pinnatim disposi[illegible] chotomis *plerumque purpurascentibus;* folia caulina [illegible] pius obsoletinervia *H. adunci;* perich. *plicatu[illegible] nati;* theca *H. adunci.*

H. Stereodon aduncus ε. *revolvens* Brid. II. p. 625. – [illegible] *dium* Hartm. Sk. Fl. Ed. 5. p. 332; e spec. auctoris forma [illegible] basi lata brevissime falcatis, pulcherrime purpureis, angu[illegible] areolatis. — *H. ambiguum* Schrad.

Patria. Locis paludosis zonae alpinae per totam [illegible] ropam, Americam, et in regionibus arcticis atque [illegible] arcticis.

Ab *H. adunco* notis cursive impressis procul [illegible] differt; ab *H. uncinato* foliis caulinis estriatis facil[illegible] stinguitur.

197. **H. paradoxum** Hook. et Wils. (Lond. Jo[illegible] of bot. 1844. p. 554.); *monoicum; H. uncinato* simillim[illegible] folia e basi latiuscule ovata minus circinnate falcata, [illegible] funde plicata, *distincte denticulata,* margine cost[illegible] nervo subdimidiato vel longiore, cellulis angustis pel[illegible] dioribus, alaribus paucis *quadratis minutis* pellucidis [illegible] rich. e basi *late ovata tenerrime membranacea* [illegible] elongate pellucide reticulata *enervi in acumen* [illegible] *bito fere producta, dentata;* theca in ped. purpure[illegible] viusculo *ubique tuberculoso horizontalis oblongo-*[illegible] perist. d. ext. ferruginei, int. flavi hiantes, cili[illegible] interjectis.

Cum ic. in Fl. Antarct. II. p. 419. t. 155. f. 2.

Patria. Insula Eremitae ad Cap. Horn, ad rup[illegible] didas et rad. arborum, rarius: J. D. Hooker.

Ab *H. uncinato, adunco* et *fluitante,* proximis [illegible] generibus, pedunculo scabro primo aspectu pulcherr[illegible] distinguitur. Operc. ignotum.

Species incerta.

1. **H. Freycheniarum** Hsch. (in Regensb. Fl. 1825. VIII. I. p. 78.); ascendens, folia secundo-falca[illegible]

ovato-acuminata, enervia; theca obovata subapophysata cernua, operculo conico. †.

Patria. Islandia: Freuchen.

Subsectio II. **Aptychus.** Caulis vage ramosus, ramis ascendentibus *confertioribus*, folia concava, erecto-patentia, plus minus secunda, 1—2-nervia, laevia, *estriata, vel ob marginem revolutum utrinque semel plicata.*

Ab *Isothecio* caracteribus expositis distinguitur.

A. *Folia binervia vel enervia.*

1. *Cellulae alares vesiculaeformes.*

a. *Theca erecta.*

198. **H. Kegelianum** C. Müll.; *monoicum;* cespites plani lati, ramis *utrinque valde compressis uncinatis, valde homomallophyllis, ramulosis,* lutescentibus v. viridibus, folia caulina *maxime secunda, brevia late ovata v. oblongo-ovata* breviter acuminata, margine *valde reflexo*, cellulis *ellipticis brevibus veluti incrassatis,* alaribus inferioribus *parvis indistincte vesiculaeformibus;* theca in ped. longiusculo erecta *anguste longiuscule cylindracea subarcuata,* sicca ore coarctata, exannulata, operc. conico longe oblique aciculari; perist. d. ext. *breves tenues plani brevissime cristati* lutei.

Leskea Kegeliana C. Müll. Linn. XXI. p. 198.

β. tenue; partibus omnibus gracilioribus, ramis viridibus. *Leskea Dominicensis* Mont. in litt. — *L. cespitosa* Brid. II. p. 289 ex parte. — *L. subpinnata* ej. II. p. 287!

Patria. Surinam, ad truncos arborum, in radicibus prope Paramáribo et in sylvis opacis pr. Mariepaston ad flum. Saramacca, e mensi Majo usque ad Augustum fructib. maturis copiose legit Kegel 1844. Ex insula Trinidad Antillarum minorum misit indefessus scrutator Crüger, qui locis et mensibus iisdem 1847 copiose legit. Var. *β.* ibidem et in Brasilia, pr. Rio Janeiro: Beske, in insula St. Catharina, in viis cavis ad lapides prope Destero m. Martii et Maji: Pabst 1847; in Hispaniola et Porto Rico: Bertero.

Notis cursive impressis ab *H. cespitoso* prorsus differt.

199. H. Hampeanum C. Müll.; *monoicum;* cespites pulvinulati laxe cohaerentes sordide virides v. lutescentes subdecumbentes; caulis repens homomallophyllus appressus, ramis *humilibus teretibus subtenuibus* circinnato-curvatis subramulosis; folia caulina *secunda dense conferta erecta minora*, incrassate elliptico-areolata; perich. *anguste lanceolato-acuminata* recta; theca in ped. *perbrevi* erecta *minute oblonga, haud arcuata*, ore aequali minori siccitate coarctato, annulo nullo, operc. cupulato longe oblique subulato; perist. minus, ciliis internis *vix ullis rudimentariis.*

Leskea circinalis Hmp. Ic. Musc. t. 5. — *Neckera straminea* Hsch. Fl. Bras. I. p. 54! Nomina duo trivialia *Hypnis* aliis duobus jam imposita sunt.

Patria. Brasilia, Villa Rica in montosis glareosis: de Martius, Rio Janeiro: Beske.

Ab *H. Kegeliano* proximo caracteribus notatis certe differt.

200. H. microcarpum C. Müll.; *monoicum;* late cespitosum arcte adhaerens, *longe repens* vage ramosum, ramis *brevissimis valde homomallophyllis velutino-viridibus v. lutescentibus curvatis;* folia caulina laxe imbricata patula, *anguste ovato-lanceolato-acuminata*, profunde concava, integerrima, *obsoletinervia, subsymmetrica*, margine erecto v. reflexo, cellulis *angustissime linearibus pallide viridibus, basi flavidis*, alaribus *dimorphis, superioribus paucis laxiuscule quadratis* pellucidis, intus granulosis, *inferioribus utrinque binis v. ternis vesiculaeformibus parvis flavidis;* perich. erecta majora, margine magis reflexa, basi laxe et flavide reticulata, nervis binis obsoletis brevibus flavidis; theca in ped. brevi purpurascente laevi *erecta parum arcuata minute ovalis brevicolla, ore aequali* constricta, *leptodermis reticulata*, exannulata, olivacea, dein fuscidula, operc. *conico longe oblique subulato* pallido; perist. d. ext. *planissimi leptodermes albidi* breves, int. vix breviores *hyalini* subsolidi, ciliis singulis brevibus.

Leskea microcarpa Brid. II. p. 289. — *L. adnata* Rich. Fl. Amer. Bor. Mich. II. p. 314. — Schw. Suppl. I. II. p. 167. t. 84! — *L. cespitosa var. adunca* Hmp. Linn. XIII. p. 47! — *Hypnum crassiusculum* Hook. et Wils. in Drumm. Musc. Amer. No. 107. — *H. minimum* P. B. Prodr. p. 66! — *H. gracilicarpum* Bruch. mst.

Patria. America septentrionalis, in Carolina inferiore (unde primus habuit Richard) ad corticem arborum praesertim *Quercus aquaticae* circa Carlestown vulgatissimum: Beyrich, Sullivant; in Ohione et Ludovicia: Sullivant; e Florida habuit Torrey; in insula Terre Neuve legit La Pylaie, e Carolina meridionali formam robustiorem longiorem determinavit novam speciem Bruch.

b. *Theca inclinata.*

201. H. demissum De Not. (Syllab. Musc. 1838. p. 57.); *monoicum; H. microcarpo* simillimum, sed *rami magis teretes, haud compresso-homomallophylli, minus velutino-virides sed lutescentes splendentes vel rufescentes aurei;* folia caulina *minus homomalla;* perich. caulinis angustiora *subdenticulata basi flaviora;* theca *collo carens subinclinata;* perist. d. ext. *crassiores intus valde cristati,* int. *flavidi,* ciliis singulis albidis brevibus.

H. Schimperi Bruch in litteris! — *H. demissum* Wils. Engl. Fl. V. p. 9. et Engl. Bot. t. 2740?

Patria. Italia, ad rupes in valle Intrasca ad Verbanum: De Notaris. In Vogeso inferiore: W. P. Schimper 1838 hyeme. Hibernia, ad lapides in sylvis prope Cromaglown circa Killarney: W. Wilson et pone Kenmare.

202. H. Carolinianum C. Müll.; *monoicum; longe prostratum,* ramis *longiusculis flaccidis compressis sordide lutescentibus;* folia caulina anguste lanceolato-acuminata cymbiformi-concava, distincte secunda, *margine ubique distincte revoluto;* perich. e basi vaginante longiuscule acuminata integerrima; theca in ped. brevi rubro torto tenero laevi inclinata minute obovata, ore coarctata; perist. minuti d. ext. flavidi, intus valde cristati subcar-

nosuli, int. angustissimi solidi flavidi, ciliis singulis acquilongis albidis interjectis.

H. demissum Sulliv. Musc. Allegh. No. 48.

Patria. In rupibus declivibus irroratis montis Grandfather Carolinae superioris: Sullivant.

Ab *H. demisso* caracteribus expositis certe differt. Theca senectute nutans.

203. H. Marylandicum C. Müll.; *monoicum;* longe lateque prostratum *viride* compressum flaccidum *robustius latius; rami apice subcuspidati;* folia caulina laxe imbricata *vix secunda, late ovato-acuminata,* integerrima, margine *erecto,* elongate lineari-areolata, pallida, cellulis alaribus majusculis hyalinis v. flavidis; perich. anguste lanceolato-acuminata profunde concava, margine reflexa; theca in ped. *elongato* flexuoso inclinata *multo robustior oblonga subcernua,* ore coarctata, perist. *H. Caroliniani.*

H. demissum var. Sulliv. Musc. Allegh. No. 49.

Patria. In summo Marylandiae jugo Backbone dicto, ad saxa madida: Sullivant.

Ab *H. Caroliniano* notis editis certe refugit.

204. H. maritimum C. Müll.; *monoicum;* longe et late prostratum *rigidiusculum* lutescens *subrobustum* elongatum sed breviter ramosum; folia caulina dense imbricata, *parum secunda, e basi longius angustiore late cochleariformi-ovata* subacuminata, profunde concava, margine reflexo, nervis *subdistinctis* binis flaviusculis, cellulis *grosse ellipticis;* perich. vaginanti-ovata longius acuminata; theca in ped. mediocri subvalido rutilante inclinata *anguste cylindracea,* operc. longe subulato obliquo.

Leskea maritima Hook. Musc. Exot. t. 166. — Brid. II. p. 294.

Patria. Prom. b. spei, in fruticetis arenosis sinus Plattenberg: Burchell.

Ab *H. Caroliniano* simili caracteribus expositis distat. Fructum tantum immaturum habemus.

205. H. brachycarpum Hmp. (Ic. Musc. tab. 11.); *monoicum; H. microcarpo* simillimum; folia caulina an-

gustissime v. anguste lanceolato-acuminata, cellulis basi saepe minus flavidis et alaribus magis granulosis; theca saepe robustius ovalis, erecta v. inclinata; perist. d. ext. lanceolato-subulati *robusti carnosuli intus valde cristati.*

Patria. Prom. b. spei, in sylvis primaevis Krakakammae distr. Uitenhagen: Gottsche misit; in latere montis tabularis nemorali m. Augusti legit Mundt; in locis non designatis legit Pappe. Vulgare videtur.

206. **H. macrorrhynchum** Hsch. (Fl. Bras. I. p. 81.); *monoicum?* caulis repens gracilis vage ramosus, ramis subpinnatim ramulosis, ramulis ascendentibus pallide viridibus vel luride lutescentibus; folia caulina laxe imbricata subsecunda, oblongo-lanceolata *longius* acuminata, *latiora*, integerrima, enervia (?) angustissime lineari-areolata; perich. ovato-acuminata, interiora lanceolata breviter acuminata, magis magisque angustata, caulinis similia; theca in ped. gracili flexuoso laevi purpurascente *horizontalis*, minute *obconica* parum curvata, operc. hemisphaerico longissime rostellato longiori; perist. d. ext. lanceolato-subulati lutei, intus cristati, int. lutei subulati solidi, ciliis solitariis paullo brevioribus capillaribus hyalinis. †.

Patria. Brasilia, ad corticem arborum prope Rio Janeiro: Sellow et Merkel.

Ex animadv. auctoris ab *H. microcarpo* nob. (*Leskeae adnatae* Schw.) notis laudatis paucis distare dicitur.

207. **H. humile** Harv. (Hook. Ic. Pl. Rar. t. 23. f. 9.); *monoicum?* humile laxe cespitosum intertextum *sordide lutescens*, ramis *brevibus parum curvatis*, *ramulis brevissimis creberrimis*, *igitur subglomerate ramulosis* pinnulatum; folia caulina homomalla anguste lanceolato-acuminata substricta integerrima, concava saepe implana, margine convexo-reflexo, nervis obsoletis, cellulis breviusculis angustis pallide lutescentibus, basi flavidis, alaribus superioribus *vix ullis*, inferioribus utrobique ternis vesiculaeformibus majusculis aureis; perich. late ovato-vaginantia longius acuminata, acumine subflexuoso sub-

denticulato; theca in ped. breviusculo purpureo laevi *horizontalis* oblonga exannulata badia; perist. d. ext. *carnosuli, intus valde cristati, breviusculi robusti* lutei, int. aequilongi compresso-carinati angusti vix pertusi flavidi, ciliis singulis brevioribus.

Hypnum humile Harvey c. diagnosi in Lond. Journ. of bot. 1840. II. p. 19.

Patria. Nepal: Wallich.

Ab *H. microcarpo* notis laudatis longe differt. Operculum ignotum.

208. **H. subhumile** C. Müll.; *monoicum;* humile laxe cespitosum intertextum *pallide lutescens nitidulum,* ramis brevibus *distincte uncinatis subsimplicibus;* folia caulina longius acuminata, cellulis alaribus *superioribus crebrioribus paucis laxiuscule* quadratis pellucidis; perich. *anguste lanceolato-acuminata subintegerrima;* theca *parum inclinata,* ovalis ore minori siccitate constricto.

Hypnum humile Mont. in schedulis, haud Harvey!

Patria. Montes Neelgherienses: Perrottet.

Ab *H. humili* simillimo caracteribus laudatis prorsus diversum.

209. **H. cespitosum** Sw. (Prodr. Fl. Ind. Occ. III. p. 1807.); *monoicum;* repens, ramis erectis altiusculis laxiusculis, *subsimplicibus seu basi rarius divisis, plerumque obtusis robustis ubique densifoliis teretiusculis splendenti-lutescentibus apice pallidioribus,* flexuosis, *haud uncinatis, curvatis;* folia caulina *ubique inserta parum homomalla,* e basi brevi angustatâ *oblongo-lanceolata acuminata angustiuscula sublonga,* profunde concava, subintegerrima, margine ubique erecto v. vix reflexo, nervis obsoletis, cellulis *angustissime linearibus, haud incrassatis, longiusculis pallidis,* basi flavidis, alaribus superioribus vix ullis quadratis pellucidis, inferioribus utrobique ternis flavidis *majusculis distincte vesiculaeformibus;* perich. latiora vaginantia longius acuminata vix denticulata; theca in ped. purpurascente laevi *longiusculo parum inclinata minute et breviter ovata urceolata ma-*

crostoma, sicca ore coarctata, operc. conico oblique subulato; perist. d. ext. rufescenti-flavi, humore valde incurvi, intus valde cristati, int. aequilongi flavidi solidi v. pertusi, ciliis singulis albidis brevioribus.

Hypnum Galipense C. Müll. Bot. Zeit. 1848. p. 780. — *H. Tovariense* C. Müll. l. c. forma laxifolia. — *H. obliquifolium* C. Müll. Bot. Zeit. 1845. p. 110. — *H. leptochaeton*? Wils. Lond. Journ. of bot. 1844. — *Hypnum subsecundum* Arn. Disp. d. M. p. 62. — *H. (Stereodon) pallidisetum* Brid. II. p. 591! seu *H. densifolium* Spreng. l. c. — *Leskea cespitosa* Hdw. Sp. Musc. p. 233. t. 49. — Brid. II. p. 288 ex parte. — *L. cespitosa β. subsquarrosa* Brid. II. p. 289 vera species.

Patria. Ad radices arborum in montibus Hispaniolae: Swartz; in Porto Rico et Guadeloupe: Bertero. Venezuela, prov. Caracas, prope Galipan, alt. 4000, 1845 m. Januarii leg. Funck et Schlim in Coll. Linden. No. 345 et 357; Cumbre de Caracas, alt. 3000′: Wagner 1848 legit; prope coloniam Tovar Germanicam prov. Caracas, alt. 5500′, in lapidibus m. Januar. leg. Funck et Schlim, in Coll. Linden. No. 470. In insula Antillarum Trinidad prope St. Cruz formam humiliorem leg. 1. Aug. 1847 Crüger. Ad lapides sylvarum insulae St. Catharinae Brasiliensis, m. Junii et Julii 1847: Pabst; Serra dos Orgaôs: Gardner No. 112.

Vera species in herbariis raro occurrit! Theca saepius oblongo-coarctata observatur. Ex areolatione foliorum, eorum forma anguste lanceolata longius acuminata profunde concava, colore pallido et ramis densifoliis vix homomallophyllis splendenti-pallescenti-lutescentibus facile cognoscitur.

210. **H. Loxense** Hook. (in Kunth. Synops. Pl. Aeq. I. p. 62.); *monoicum;* laxe cespitosum, ramis altiusculis erectis parce brevissime ramulosis sordide lutescentibus v. viridibus densifoliis robustiuscule subteretibus flexuosis vix curvatis et parum homomallophyllis; folia caulina *robusta majuscula late ovato-acuminata profunde et valde irregulariter complicate concava, maxime implana*, margine *valde revoluto* integerrimo, nervis brevibus distinctis,

cellulis *brevibus ampliusculis pellucidis firmis, superne grossiuscule ellipticis*, basi flavidis, alaribus super. vix ullis laxe quadratis, infer. 4—5 *parvulis* indistincte vesiculaeformibus flavidis; perich. *anguste lanceolato-acuminata regulariter cymbiformi-concava*, basi laxe reticulata flavida subnervosa, integerrima; theca in ped. mediocri purpureo laevi inclinata *gibboso-oblonga brevis superne subarcuata, ore minori*, annulo nullo, operc. cupulato longe oblique subulato; perist. *H. cespitosi*, sed dentes ext. minus cristati.

Hypnum (*Stereodon*) *Loxensis* Brid. II. p. 590.

β. rivulare; viridissimum laxissime imbricatum, subflaccidum, folia subrotundate late ovata, magis regulariter cochleariformi-concava, nervis sublatis elongatis; perich. caulinis parum angustiora. *Hypnum lithophilum* Hsch. Fl. Bras. I. p. 84.

Patria. In sylvis Cinchonae, regione temperata, juxta Loxam et Gonzanamam, Peruviae alt. 1080 hex. primi leg. Humboldt et Bonpland; Brasilia, Serra dos Orgaôs: Gardner, praeterea in regionibus aliis hujusce terra haud rarum videtur. Var. *β.* in Brasilia, in lapidibus rivulorum pr. Novo-Friburgum: Beyrich, in Serra dos Orgaôs, locis similibus: Sellow, in iisdem locis prov. St. Catharinae: Blumenau 1848, in insula St. Catharinae Brasiliae ad ripas flum. Itajahi, Sept. Oct. 1846: Pabst.

Ab *H. cespitoso* proximo caracteribus laudatis differt.

211. **H. inconspicuum** Hsch. (Fl. Bras. I. p. 86.); *monoicum; H. Loxensi* simile, sed folia caulina late ovato-acuminata *regularia, haud implana, margine erecto v. parum convexo, haud valde reflexo, planiuscula*, cellulis *angustioribus et longioribus tenerioribus*, alaribus superioribus *minutis;* perich. vaginantia, anguste lanceolato-acuminata, *intima longissima* pellucida elongate anguste reticulata enervia; theca in ped. mediocri suberecta v. cernua oblonga, peristomio *H. Loxensis.*

Patria. Brasilia, ubi locis non designatis legit Martius.

Ab *H. cespitoso* foliis latioribus, e cellulis robustioribus magis ellipticis, haud angustissimis elongatis, compositis planiusculis differt. Fructum non vidimus.

212. H. sphaerotheca C. Müll.; *monoicum;* late laxe cespitulosum, longe repens foliosum, ramis assurgentibus erectis v. curvulis turgidis brevibus subsimplicibus e viridi lutescentibus, inferne plerumque nigricantibus vix homomallophyllis; folia caulina laxe conferta, humore patula, e basi angustâ late oblongo-ovata obtusa brevissime acuminata *semper profunde cochleariformi-concava regularia,* margine integerrimo late revoluto, nervis brevibus, cellulis brevibus ampliusculis pellucidis, utriculo primordiali tenuissimo instructis, v. ellipticis, lutescentibus v. subvirentibus, basi flavidulis, alabus et foliis perichaetialibus *H. Loxensis;* theca in ped. reviusculo purpureo laevi valido parum inclinata, *breviter turgide globosa,* ore aequali siccitate coarctata, firma, exannulata, operculo et peristom. *H. Loxensis.*

Hypnum lithophilum Hsch. in Musc. a Mundt et Maire lectis, non Fl. Bras.!

Patria. Prom. b. spei: Pappe, Zeyher; ad catarractam m. tabularis et inter saxa ad catarractam m. Caboli orientalis, 12. Sept. 1824: Ecklon; ad Hangklipp prope Simi leg. Mundt et Maire 1821.

Ab *H. Loxensi* var. *rivulari* simillimo notis cursive expressis prorsus distinctum et *Hypno murali* habitu similе.

c. *Theca demum nutans.*

213. H. flaccidifolium C. Müll.; monoicum; repens laxe cespitulosum, erectum, ramis *simplicibus laxissime foliosis flaccidis erectis v. vix curvulis* sordide lutescentibus; folia caulina *laxe patula indistincte secunda, elongate inaequaliter latiuscule lanceolato-acuminata planiuscula* implana, margine *erecto,* nervis et cellulis *H. cespitosi;* perich. caulinis longiora et caviora; theca in ped.

breviusculo purpureo laevi *horizontalis v. nutans oblonga*, ore constricta, exannulata, operc. oblique subulato; perist. *H. cespitosi.*

Patria. Insula Trinidad: Crüger 1847 legit.

Ab *H. cespitoso* theca horizontali oblonga longiore robustiore, foliis planiusculis distinctius secundis laxissime imbricatis, ramis flaccidis, ab *H. Kegeliano v. tenui* simillimo notis cursive impressis, areolatione folii et peristomio differt.

214. **H. saproxylophilum** C. Müll.; *dioicum?* caulis repens prostratus *radicans homomallophyllus*, ramis *humillimis patentifoliis glauco-viridibus simplicibus;* folia caulina *laxe patentia, longiuscule lanceolato-acuminata angusta stricta subintegerrima, cymbiformi-concava*, margine erecto rarius parum involuto, nervis obsoletis v. *brevibus*, cellulis *longiusculis pellucidis viridibus sublaxis, mollibus*, basi flavidis, alaribus majusculis turgidis vesiculaeformibus flavidis v. hyalinis; perich. inferne parum latiora subvaginantia longius acuminata et denticulata; theca in ped. *brevi* laevi purpurascente apice arcuato horizontalis v. nutans *minute obovalis rugulosa* badia, exannulata, operc. conico longe aciculari recto aurantiaco; perist. d. ext. breves lutei, linea media valde exarati, latere valde cristati, int. flavidi pertusi angustissimi, ciliis singulis hyalinis brevioribus.

Hypnum microcarpum? Dub. (non Hook. in Lond. Journ. of bot. 1840. II. p. 18.) in Moritzi Syst. Verz. d. Zoll. Pfl. p. 131.

Patria. Java: Zollinger No. 243. z.

Habitus ob caulem prostrato-radicantem homomallophyllum glaucum brevirameum proprius.

2. *Cellulae alares quadratae.*

a. *Theca erecta.*

215. **H. acuminatum** P. B. (Prodr. p. 60.); *dioicum;* caulis laxe cespitosus longe repens, ramis erectis humilibus crassiusculis strictis teretibus attenuatis viridibus, apice sericeo-luteis, inferne ferrugineis; folia caulina

sicca et madefacta erecto-imbricata, subsecunda, *late ovato-acuminata breviuscula, acumine brevi semel torto, plicis duabus laevibus*, nervo ultra medium producto canaliculato viridi, margine late reflexo convexo subdenticulato, cellulis *brevibus* mollibus virescentibus, alaribus paucis *laxe quadratis, intus valde granulosis obscuris, parum impressis;* perich. late ovata, longe crinita, vaginanti-concava, *enervia* elongate et laxe reticulata, *haud plicata;* theca in ped. breviusculo valido rutilante *laevi* erecta cylindraceo-oblonga subcernua, exannulata, operc. conico acuminato obliquo; perist. d. ext. *lineari-lanceolati* lutei, int. *angustissimi laeves* flavi pertusi, ciliis singulis rudimentariis.

Leskea acuminata Hdw. Sp. Musc. p. 227. t. 56. f. 1—7. — Brid. II. p. 296. — *Hypnum rupincolum* P. B. Prodr. p. 69. — *Leskea rupincola* Hdw. Sp. Musc. p. 227. t. 54. — Brid. II. p. 302. Forma ramis crassioribus obtusiusculis compactius cespitosa. — *Hypnum setosum* P. B. Prodr. p. 70. — *Leskea setosa* Hdw. Sp. Musc. p. 226. t. 57. — Brid. II. p. 302. Forma gracilis, foliis angustis indistincte biplicatis. — *Leskea Beyrichii* Hmp. Linn. XIII. p. 47 et Ic. Musc. t. 7! Forma gracilis, pedunculis longioribus. — — *H. erectum* Drumm. Musc. Amer. No. 224!

Isothecium bryiforme Brid. II. p. 365. — *Hypn. bryiforme* Brid. Musc. Rec. II. II. p. 100. — H. julaceum, erectum Bryi argentei habitu. Dill. p. 322. t. 41. A. B. D.

Patria. Per totam Americam septentrionalem vulgatissimum, ad rupes et arbores in depressioribus. — Mühlenberg primus legit.

Ab *H. sericeo* affini notis expositis distinctissimum.

216. **H. densum** C. Müll.; *dioicum;* laxe cespitosum humile decumbens vage ramosum, ramis assurgentibus *firmis julaceo-teretibus tenuibus* viridiusculis nitidulis, pluries breviter ramulosis *saepe breviter flagelliferis;* folia caulina dense appressa, humore squarrulosa erecto-patentia, *late ovata, acumine brevi subobliquo, brevia, profunde subcarinate concava* subintegerrima, margine ubique erecto, nervis brevibus pallidis tenuibus, cellulis brevibus pellucidis virescentibus, *alaribus permultis planis quadratis pellucidis granulosis;* perich. an-

gustiora longius acuminata; theca in ped. mediocri rigido stricto laevi purpurascente *erecta leptodermis* exannulata (?) pallida fusca, *cylindraceo-oblonga*, operc. *conico oblique rostellato brevi;* perist. d. ext. pallide fusci, internum: membrana tessellata subopaca fuscescens, in dentes lanceolatos solidos fissa, processu exiguo interposito.

Leskea densa Hook. in Kunth. Synops. Pl. Aeq. I. p. 61. — Brid. II. p. 299. — Schw. Suppl. III. II. 2. t. 291. — *Hypnum brachycladon* Arnott. Disp. d. M. p. 61.

Patria. In regno Mexicano, locis scopulosis inter Pazcuaro et Ario, 1000—1100 hexapodes elevatis: Humboldt et Bonpland.

Entodonti longiseto haud dissimile. Peristomium ipsi non vidimus.

217. **H. homomallum** C. Müll.; *dioicum;* cespites decumbentes latiusculos laxe cohaerentes *amoene lutescenti-rufescentes, aureos* sistens, prostratum maxime homomallophyllum, in ramos flexuosos breves curvatos rigidos robustos fissum; folia caulina dense conferta erecto-patula, *e basi obliqua asymmetricâ* latiuscule ovato-acuminata, cochleariformi-concava, integerrima, margine erecto v. reflexo, nervis brevibus flavidis subobsoletis, cellulis breviter prosenchymaticis robustis luteis, basi fuscidulis, alaribus *valde pachydermibus multis quadratis fuscis planiusculis;* perich. longe lanceolato-acuminata stricta angustiora, basi laxius reticulata; theca in ped. breviusculo flexuoso purpurascente laevi erecta parvula, sed robusta et orificio valde coarctato parum arcuata, pachydermis badia, exannulata, operc. depresso-conico oblique subulato aurantiaco; perist. ext. d. lutei, in subulam tenuem producti, int. subaequilongi flavidi subsolidi angusti, ciliis singulis brevibus limpidis.

Hypnum Drummondi Tayl. Lond. Journ. of bot. 1846. p. 63. — *Leskea homomalla* Hmp. Ic. Musc. 1844. t. 6. et in Pl. Preiss. No. 2465.

Patria. Nova Hollandia, ad corticem *Banksiae Menziesii* pr. oppidum Perth, 19. Aug. 1839: Preiss; ad

Swan River: J. Drummond. In Van Diemen's Land J. D. Hooker et ad King George's Sound Cunningham ex animadv. Wilsoni (l. c.) legisse dicitur.

218. **H. polyanthum** Schreb. (Spic. Fl. Lips. p. 97.); *monoicum;* cespites *lati depressi velutino-virides intertexti molles;* caulis repens, ramis assurgentibus *brevibus teretibus tenuibus parum homomallophyllis subcurvatis;* folia caulina laxe imbricata *sericea, humore plumoso-patula, anguste lanceolata, longe oblique acuminata, subintegerrima, profunde concava, margine inferne reflexo,* nervis *brevibus pallidis* saepe obsoletis, cellulis *mollibus viridibus* longiusculis linearibus, alaribus multis quadratis pellucidis teneris intus granulosis; perich. erecta late vaginantia acuminata distincte denticulata tenerius pellucidius reticulata, *subplicata;* thecae in ped. *brevissculis* purpureis creberrimis tortis laevibus *erectae anguste cylindraceo-oblongae v. ellipticae, leptodermes fuscidulae,* imperfecte *annulatae,* operc. *conico brevi oblique acuminato* concolori; perist. d. ext. anguste lanceolato-subulati valde incurvi aurantiaci, latere cristati, int. *angusti valde carinati aequilongi lutei rugulosi lineari-pertusi v. secedentes, ciliis singulis rudimentariis.*

Leskea polyantha Hdw. Musc. Fr. IV. p. 4. t. 2. — Brid. II. p. 311. — *L. filiformis* Sibth. Fl. Oxon. p. 303? — *L. splendens* Wib. Fl. Werth. p. 340? — *Hypnum filifolium* Linn. Mant. Pl. II. p. 310. et synonymae sequentes species fide Bridel. receptae. — *H. filiforme* Huds. Fl. Angl. ed. I. p. 497. — *H. filiforme* l. c. p. 421. — *H. strigosum* Neck. Meth. Musc. p. 179. — Hypnum sericeum ramosius et tenuius, capsulis acuminatis. Dill. Musc. p. 327. t. 42. f. 62.

β. pallidifolium; pallida, folia late ovato-acuminata caviuscula subscariosa, vix mollia, margine erecto, cellulis pallidissimis subconflatis, alaribus paucis minutis, saepe vix granulosis. *Pylaisaia heteromalla* Br. et Sch. in correct. Musc. Drumm. Amer., in Lond. Journ. of bot. 1843. II. p. 669. — *Hypnum multiflorum* Tayl. in Fl. Hibern. Mackay. II. p. 46. — *H. resupinatum* Tayl. in Spruce Musc. Pyr. Ann. and. Mag. of Nat. Hist. 1849. No. 46.

Patria. Per totam Europam, vulgare in arboribus, rarius ad saxa, et in America septentrionali. Var. *β.* in locis siccioribus. — *Ex auctumno per hyemem usque ad dies vernales.*

Peristomium a caeteris *Hypnis* minime differt.

219. H. intricatum C. Müll.; *monoicum; H. polyantho* simillimum, sed ramis plerumque magis incurvis brevioribus; folia caulina densius conferta, *breviter lanceolato-acuminata,* margine *erecto,* nervis brevissimis pallidis, cellulis pallide virentibus brevibus submollibus, alaribus *minute* quadratis chlorophyllosis; perich. nervis longis maxime deplanatis viridibus; perist. d. ext. *brevissime lanceolati, latere intus maxime cristati, igitur obscuri carnosuli,* interni aequilongi *externis adglutinati, facillime in crura ciliaeformia duo rugulosa obscura secedentes,* ciliis singulis rudimentariis.

Anomodon intricatus Hmp. Linn. XIII. p. 46. — *Maschalocarpus intricatus* Spr. Syst. Veget. IV. I. p. 159. — *Pterogonium intricatum* Schw. Suppl. I. I. p. 100. — *Pterigynandrum intricatum* Hdw. Sp. Musc. p. 85. t. 18. — Brid. II. p. 179. — *Pterig. appressum* Brid. II. p. 186! — *Hypnum appressum* Brid. Sp. Musc. II. p. 161!

Patria. America septentrionalis, a Marylandia usque ad Ludoviciam, arboreum vulgatissimum legit Sullivant; in Pensylvania detexit Mühlenberg.

Cilia rudimentaria perist. interni ob situm pone dentes externos difficillime observanda.

b. *Theca inclinata.*

220. H. orthothecium Schw. (Suppl. III. I. 1. tab. 220.); *monoicum;* longe repens appressum, ramis erectis apice incurvis brevibus semuncialibus subsimplicibus densis aequalibus *luteo-viridibus* divisum; folia caulina densiuscule imbricata *valde secunda, ovato-lanceolata* profunde concava, plica una alterave brevi instructa, subintegerrima obsoletinervia (?) cellulis elongatis pallide viridibus, alaribus multis planis quadratis pellucidioribus; perich. e basi ovata anguste longius acuminata substricta;

theca in ped. tenui fusco laevi breviusculo *teretiuscula suberecta parum inclinata fusca;* perist. d. ext. robusti latere pallidi, lutei carnosuli, celerrime emollientes, int. aequilongi flavidi solidi, ciliis *binis limpidis nodosis aequilongis.* †.

Neckera secunda Hook. mst. ibidem. — *Leskea secunda* Hook. Ic. Pl. Rar. t. 23. f. 1. et Lond. Journ. of bot. 1840. p. 16 foliis ovato-acuminatis binervibus huc pertinere videtur.

Patria. Ad ligna putrida Indiae orientalis: Hb. Hooker.

Notis laudatis a congeneribus *H. polyantho* affinibusque facile discernibile.

221. H. pallescens P. B. (Prodr. p. 67.); *monoicum;* caulis longe *repens, ramis utrinque pinnatim dispositis, assurgentibus v. prostratis gracilibus teretiusculis subsimplicibus pallide viridibus v. lutescentibus pallidis rectis,* valde homomallophyllis; folia caulina densiuscule conferta, *e basi ovata breviter falcate acuminata, erose subdenticulata* concava, margine *anguste revoluto,* nervis binis brevibus pallidis, cellulis brevibus angustis virescentibus, basi subflavidis, alaribus multis minute quadratis obscuris intus granulosis; perich. *longe vaginantia,* acumine breviusculo terminata, *eroso-denticulata,* subplicata, obsoletinervia, basi laxe reticulata, pallida; theca in ped. longiusculo aurantiaco laevi gracili tortili suberecta cernuo-cylindracea, ore coarctata, basi angustata, simpliciter annulata, pallescens, operculo *turgide conico acuminato* recto pallidiori; perist. d. ext. angustiusculi lutei, int. subflavidi perforati vix punctulati, ciliis binis albis sublaevibus.

Leskea pallescens Hdw. Sp. Musc. p. 219. t. 55. — *L. hispidula* Brid. Sp. Musc. II. p. 79.

Patria. In subalpinis et alpinis totius fere Europae, ad terram et corticem arborum.

222. H. adnatum Hdw. (Sp. Musc. p. 248. t. 64.); *monoicum; tenellum pusillum viridissimum haud sericeum,* ramis procumbentibus vagis *brevissimis teretibus*

vix homomallophyllis, tenuioribus haud curvatis, parum intertextis; folia caulina dense conferta *parum secunda, regulariter et breviuscule latiuscule ovato-acuminata integerrima* profunde concava, margine basi paulisper reflexo, nervis breviusculis viridibus, cellulis ellipticis viridissimis, alaribus permultis planis quadratis *parvis* virescentibus granulosis; perich. externa reflexa minora, interna majora e basi latiuscule ovata laxius reticulata subpellucida longius acuminata erecta, crenulata; theca in ped. *brevi* purpurascente laevi stricto subvalido *parum inclinata, oblonga, ore obliquo constricto inaequalis,* olivacea, dein badia, exannulata; operc. *cupulato obtuso mammillato* pallido; perist. d. ext. lutei, int. flavidi aequilongi *laeves* pertusi, ciliis *aequilongis albidis capillaribus* subrugulosis singulis.

Hypnum Stereodon adnatus Brid. II. p. 591.

Patria. America septentrionalis, ad arborum corticem Pensylvaniae primus legit Mühlenberg; in republica Massachussets: Torrey. Ad saxa, rarius in arboribus haud infrequens legit Sullivant. Coll. No. 28.

Species pulchella facile distinguenda. Flos masc. turgidus, foliis late ovatis breviter et obtuse acuminatis. Ab *H. polyantho*, parum simili, notis cursive impressis toto coelo differt.

223. H. ambiguum Harvey (Ic. Pl. Rar. Hook. tab. 24. f. 4; c. descr. Lond. Journ. of bot. 1840. 2. p. 20.); *monoicum;* caulis repens *tenuis* pallidus, ramis *gracillimis* flexuosis breviusculis inaequaliter pinnatus; folia dilute viridia laxiuscule conferta subsecunda parva, anguste ovato-acuminata caviuscula *minute serrulata,* margine erecto, nervis binis *longiusculis,* cellulis angustissime linearibus *subconflatis virescentibus,* alaribus vix ullis; perich. e basi latiuscule vaginante acuminata *reflexa,* acumine flexuoso tenui, subdenticulata, enervia; theca in ped. elongato rubro laevi *horizontalis, minute sphaerica.*

Patria. Nepal: Wallich.

Notis laudatis facile discernibile.

Species ob cellulas alares ignotas incertae sedis.

224. H. fuscescens Hook. et Arn. (in Cap. Beechey's Voy. Bot. 1841. p. 76. t. 19.); *monoicum?* caulis laxissime cespitosus vage ramosus compressiusculus prostratus *brunnescens* dichotome divisus; folia caulina distichacea laxe disposita *subsecunda*, e basi brevissima angustiore amplexante late ovato-acuminata, enervia, laxe reticulata, membranacea *nitida* caviuscula, margine *subundulato* erecto *apice obscure serrulato;* theca in ped. brevi laevi apice valde arcuato maxime nutans parva ovata urceolata, operc. hemisphaerico-mucronato; perist. d. ext. angusti, int. haud perforati, ciliis binis brevibus interjectis. †.

Patria. Insulae societatis: Lay et Collie.

Ex icone et descriptione species, notis cursive impressis distincta, huc pertinere videtur.

225. H. succedaneum Hook. et Wils. (Fl. Antarct. II. p. 420.); folia laxe imbricata, sicca et humida patula subsquarrosa, late ovata, caviuscula, margine subreflexa, cellulis parallelogrammis; perich. longiora apice subsquarrosa. †.

Patria. Brasilia, prov. Rio prope Novo-Friburgum: Martius, inter *H. Loxense β. rivulare.*

Cui affine?

226. H. conterminum C. Müll.; hermaphroditum; caulis repens fasciculatim ramosus, ramis subsimplicibus flexuosis incurvatis laxis rufis; folia densa subsecunda erecto-patentia, oblonga acuminata integerrima enervia (?) concava involuta straminea nitentia, cellulis linearibus obsoletis (?); perich. ext. latissime ovata acuminata profunde concava obscure serrulata enervia dilute rufescentia laxius reticulata, interiora latiora brevius acuminata, intima minutissima latissima subrotunda mucronulata, cellulis parallelogrammis laxis; theca in ped. erecto gracili flexuoso laevi purpurascente suberecta oblonga rufescens;

perist. d. ext. intus valde cristati, linea perpendiculari diaphana exarati, rufescentes, int. solidi, ciliis rudimentariis (?). †.

Leskea affinis Hsch. Fl. Bras. I. p. 71.

Patria. Brasilia, in sylvis ad arbores prope Tijuca, vicinia Sebastianopoleos: Beyrich Aprili legit.

Ex animadv. auctoris *Leskeae stramineae* Hsch. et *constrictae* Brid. simillimum appellatur et differt a priori statura minori, ramificatione diversa, pedunculo ter breviori et theca multo minori, a posteriori foliis oblongis nec cordatis et pedunculo breviori.

227. **H. hookerioides** C. Müll.; monoicum; repens irregulariter subpinnatim ramosum, ramis brevibus erectis curvatis breviter ramulosis; folia caulina dense imbricata subsecunda erecto-patentia luteo-viridia concava, late ovata acuminata, obscure et remote serrulata, nervis debilibus obscuris infra medium evanidis, cellulis conferte linearibus; perich. ext. ovata breviter acuminata, interiora longiora oblonga longe acuminata, intima minuta lanceolata, omnia integerrima enervia dilute viridia laxe reticulata; theca in ped. unciali et longiori erecto apice curvato et incrassato flexuoso laevi purpurascente nutans obovata brevis inaequalis curvula paullo rugosa badia, operc. hemisphaerico-conico paulisper incurvo badio; perist. d. ext. linea longitudinali diaphana angustissima exarati subtilissime trabeculati, ad margines costato-prominentes ferruginei apice pallidi, int. in membr. lutescente aequilongi lati solidi, ciliis subulatis hyalinis, articulo inferiori plerumque bifido instructis. †.

Hookeria hypnoides Hsch. Fl. Bras. I. p. 67; sed calyptra cucullata!

Patria. Brasilia, prope Tijuca in vicinia Sebastianopoleos: Olfers.

Hookeriae praelongae ex auctore simillimum, sed foliis imbricatis subsecundis serrulatis binervibus distans.

228. **H. cavifolium** C. Müll.; caulis ascendens parce ramosus; folia conferta patentia subsecunda, sursum spe-

antia, siccitate appressa, late ovata acuta enervia, marine reflexo; perich. ovato-lanceolata; theca in ped. brevi recta subovata, operc. longirostro. †.

Leskea cavifolia Wils. Lond. Journ. of bot. 1844. 3. p. 161.

Patria. Brasilia, Jusajuba Bay pr. Rio, ad rupes: . Gardner 1837.

H. cespitoso affine videtur.

229. **H. secundifolium** C. Müll.; caulis decumbens, mis *elongatis robustis parce dichotomis* apice subcurulis viridibus; folia caulina dense conferta secunda, *lauscule elliptica* acutiuscula, concava, margine reflexa, *ngustissime lineari-areolata, obsolete* binervia ramea *elptico-oblonga obtusiuscula;* perich. erecta. †.

H. lithophilum Hook. et Wils. Fl. Antarct. II. p. 420. t. 155. 4.

Patria. Insula Eremitae ad Cap. Horn, societate *H. noeni:* J. D. Hooker.

Ab *H. Loxensi β. rivulari* (*H. lithophilo* Hsch.!) nos expositis procul dubio differt.

230. **H. crassicollum** Tayl. (Lond. Journ. of bot. 847. p. 337.); caulis procumbens repens subpinnatus; lia *magis imbricata* patentia, rotundato-ovata apiculata, ncavissima *subdenticulata enervia;* pedunculi sparsi tees laeves; theca ovata cernua basi apophysata, operc. evirostro. †.

Patria. In monte Pichincha Andium Quitensium ad rticem arborum: W. Jameson, Nov. 1846. Demarara: b. Grevillean.

Caulis 1—2 unc. longus; specimina montis Pichina viridia, Demararae luteo-viridia; ped. apice curvas; theca macrostoma et apophysi distinctissima; perist. llide fuscum, d. internis ciliis singulis interpositis. — b *H. molli* Dicks. ex animadv. auctoris notis laudatis fferre legitur. Inter speciem hancce descriptam species iae distinctae videntur!

231. **H. tenuirostre** Hook. (Musc. Exot. t. 111.); ulis repens flexuosus filiformis, ramis erectis elongatis

crebre divisis remotis apice homomallis; folia caulina falcato-secunda undique inserta fusco-viridia nitentia, e basi angustiore ovata longe acuminata, summo apice denticulata, enervia; theca in ped. breviusculo recto inclinata ovato-oblonga fusca, operc. conico subulato obliquo; perist. d. int. imperforati, ciliis binis interjectis. †.

Brid. II. p. 616.

Patria. Dusky-Bay Novae Seelandiae: Menzies 1791.

232. H. pyrrhophyllum C. Müll.; monoicum; caulis repens ramosus, ramis erectis simplicibus rarius ramulosis dense foliosis rufescentibus; folia caulina dense imbricata patentia oblonga longe acuminata integerrima enervia nitentia profunde concava pellucida, inferne fuscescentia, superne pallide viridia, cellulis linearibus confertis; perich. ovato-acuminata, intima lanceolata longius acuminata subvaginantia; theca in ped. breviusculo tortili laevi purpurascente suberecta v. cernua parva oblonga parum inaequalis brunnea, basi fusca, operc. subulato obliquo thecam aequante; perist. d. ext. inferne ferruginei, int. solidi subhyalini, ciliis rudimentariis (?). †.

Leskea fulva Hsch. Fl. Bras. I. p. 73.

Patria. Brasilia, prov. Rio Negro, ad fl. Japurá, in montibus Araracoara et Cupati: Martius mensib. Decembris usque ad Martium fertile legit.

B. *Folia uninervia.*

a. *Folia distincte homomalla.*

233. H. leucostegum C. Müll.; *monoicum;* caulis laxe cespitosus *humilis prostratus, ad paginam inferiorem radicans, ad superiorem homomallophyllus* glauco-viridis v. lutescens, *parce breviter divisus,* densifolius; folia caulina *laxe imbricata, valde ad latus unicum spectantia, e basi angustiore breviuscule anguste ovato-acuminata integerrima cymbiformi-concava* margine erecto v. vix revoluto, nervo *unico ultra medium producto,* cellulis mollibus virentibus elongatis angustis, alaribus *multis*

xe quadratis pellucidis, intus granulosis; perich. an- iste vaginantia, reflexe acuminata; theca in ped. me- ocri rutilante laevi *nutans minute obovata,* operc. co- ico *recte rostrato,* annulo nullo; perist. d. ext. angusti eves lutei, int. aequilongi solidi pallidi, ciliis vix bre- ioribus albidis *singulis.*

H. Breutelii W. P. Sch. in litt. ad Breutel! — *H. flavo-ni- ns* C. Müll. Bot. Zeit. 1844. p. 742! — *H. subflavum* Hook. et Wils. Lond. Journ. of bot. 1844. in Musc. Gardner. No. 121! — *eskea leucostega* Brid. II. p. 333!

Patria. In Antillis: Porto Rico: Bertero; Cuba, ter *Polypodium incanum:* Hb. Meissner.; St. Jan: Breutel ad cort. arborum. Brasilia, Serra de Araripe, d arbores: G. Gardner.

Notis cursive impressis species distincta.

234. **H. saxatile** Hook. et Wils. (Lond. Journ. of ot. 1844. p. 164.); *monoicum; H. leucostego* simillimum, ed theca *horizontalis subcernuo-ovalis latior,* operc. co- ico *oblique* rostrato.

H. Gardnerianum C. Müll. Bot. Zeit. 1844. p. 742.

Patria. Brasilia, ad lapides sylvarum, Natividade, Jan. 1840: G. Gardner No. 123.

235. **H. microstegum** C. Müll.; *monoicum? H. leu- costego* simillimum, sed theca *brevissime pedunculata, mi- nutissime ovalis inclinata,* operculo *minutissimo conico papillato.*

Hookeria prostrata Harv. in Hook. Ic. Pl. Rar. t. 20. f. 5. — Cum descr. in Lond. Journ. of bot. 1840. p. 15.

Patria. India orientalis, Sylhet: Wallich.

Fructus nobis non visus.

b. *Folia subsecunda.*

α. Pedunculus laevis.

226. **H. confertum** Dicks. (Fasc. Crypt. IV. 1802! p. 17. t. 11. f. 14.); *monoicum;* cespites *conferti* prostrati viridissimi v. sordide lutei subnitentes; caulis repens, ra- nis subcompressis *confertis brevibus* vage ramosus, arcte

adhaerens; folia caulina *conferta*, saepius subsecunda, humore subpatula, *e basi angustiore anguste oblongo-acuminata breviuscula subprofunde concava*, margine erecto denticulato, nervo dimidiato tenui, cellulis elongatis angustis subpellucidis, alaribus *vix ullis, ad infimam basin vix impressam rectangularibus* pellucidis; perich. anguste vaginantia, strictiuscule breviuscule acuminata, obsoletinervia, longius laxius pellucidius reticulata, superne denticulata; theca in ped. breviusculo rubro laevi inclinata, e basi angustiore tenelle oblonga subcernua, ore coarctata, annulata, fusca, operc. conico sensim oblique longirostro; perist. d. ext. angusti rufescentes, int. flavi laeves angusti *vix* perforati, ciliis binis *brevioribus* teneris albis *nodosis*.

Brid. II. p. 405. — Schw. Suppl. I. II. p. 199. t. 90. — *Leskea Ludwigii* Brid. Sp. Musc. II. p. 61. — *Hypn. Ludwigii* Spreng. Anleit. z. Kenntn. der. Gew. III. 1804! p. 297. tab. 7. f. 56. — *H. Thuringicum* Web. et Mohr. Bot. Taschb. p. 322. excl. Syn. Bridel. et Hedwig. — *H. clavellatum* Hdw. Musc. Fr. IV. p. 80, sub finem descriptionis *H. muralis*. — *H. serrulatum* Turn. Musc. Hib. p. 148 et Sm. Fl. Brit. III. p. 1290. excl. syn. Hedw. — *H. laete virens* Sm. Fl. Brit. III. p. 1290 e spec. auth., a Greon ad Bridel olim missis! Forma omalioidea magis compressa, angustius areolata. Brid. II. p. 408! sub nomine appellato. *H. rotundifolium* Dicks. Fasc. II. Pl. Cr. p. 10. excl. Syn. Scop. et With. fide Bridelii.

Patria. Per totam Europam, praeter hyperboream, in saxosis regionis montosae vel in arborum truncis. Dickson detexit in Anglia. — *Primo vere*.

Ab *H. Megapolitano*, pro varietate plerumque credito, notis citatis certe differt; multis partibus cum *H. serrulato* Hdw. convenit, diversum autem habemus.

237. H. murale Neck. (Meth. Musc. p. 172.); *monoicum*; cespites latissime procumbentes sordide virides humiles, ditissime fertiles; caulis vage ramosus, ramis brevibus turgidis subhomomallophyllis; folia caulina laxe conferta, *subrotundate ovata breviter acuminata, valde concava subintegerrima*, margine erecto, nervo latiusculo ultra medium evanido plano viridi, cellulis brevibus am-

pliusculis pellucidis virescentibus mollibus, alaribus multis laxis pellucidis teneris introrsum impressis; perich. vaginantia acuminata laxe pellucide reticulata; theca in ped. plus minus breviusculo rufo flexuoso inclinata, *ventricoso-ovata* fuscidula, ore siccitate coarctata annulata, operc. *conico longe oblique subulato;* perist. d. ext. aurantiaci planiusculi lati longi, int. flavidi solidi lati, ciliis 2—3 albidis tenuissimis rugulosis nodosiusculis.

H. Stereodon muralis Brid. II. p. 586. — Hdw. Musc. Fr. IV. p. 79. t. 30. — *H. clavellatum* L. Sp. M. p. 1596. — H. myosuroides, brevius et crassius, capsulis cernuis. Dill. Musc. p. 318. t. 41. f. 52.

Patria. Ad muros septentrionem spectantes, fossarum margines lapideos, saxa humida, in sylvaticis udis montanis ad terram, per totam Europam usque ad Lapponiam. — *Vere.*

238. **H. neglectum** Brid. (Sp. Musc. II. 1812! p. 120.); *monoicum;* cespites *humiles conferti* virides v. lutescentes; caulis repens, ramis *humilibus ascendentibus tenuibus subjulaceo-teretibus pungentibus;* folia caulina dense conferta, interdum subsecunda, breviter oblonga obtusiuscule brevissime acuminata, concava, margine distincte erecto *integerrimo,* nervo tenui ultramedio flavido unico, interdum gemello, cellulis *angustissimis subconflatis breviusculis* pallidis, alaribus paucis laxius quadratis subpellucidis et parum ventricose impressis; perich. stricta appressa pallida majuscula exserta, *anguste longiuscule lanceolato-acuminata, elongate angustissime* pellucide areolata, 1—2 nervia, plicata; theca in ped. brevi laevi flexuoso rubro inclinata cylindraceo-oblonga cernua, annulata, operc. conico *brevi subobliquo acuto;* perist. d. ext. lati planiusculi lutei, int. flavi subpunctulati, ciliis binis albis nodosis brevibus.

H. Stereodon neglectus Brid. II. p. 564. — *H. Stereodon intextus* Brid. II. p. 584 vel *H. intextum* Voit. Musc. Herbip. 1812! p. 106. et in Sturm. Deut. Fl. II. Fasc. XI. e specim Funk. partim huc, partim ad *H. serpens* pertinet; *H. intertextum* Brid. Mant. Musc. 1819. p. 167; *H. ruderale* var. *intricatum* Brid. in Sp. Musc.

H. 1812, in Add. — *Leskea julacea* Brid. Sp. Musc. II. p. 68! et Br. univ. II. p. 304.

Patria. In udis Germaniae in Franconia De la Vigne 1800 detexit, dein locis accuratius non designatis Montis Piniferi ad rupes legit Funk 1825; in Valesia Helvetiae et in Sabaudia: Thomas 1820; circa Romam in Esquiliis: Bridel 1806; prope Avenionem Galliae australis: Requien 1820; in alpibus Helveticis in terra nuda: Roger.

Ab *H. murali* caracteribus cursive impressis toto coelo differt; ab *H. conferto* foliis integerrimis ramisque julaceis jam refugit. Species pulcherrima revera neglecta, probabiliter praetervisa!

239. **H. tenuifolium** Hdw. (Sp. Musc. p. 283. t. 75.); caulis arcuatim protensus, ad extremitates radicans, ramis simplicibus arcuatis pallidis robustiusculis haud attenuatis; folia caulina inferiora minutula, ab inde confertiuscula imbricatulo-patentia, saepe ad unum latus magis directa, tenuia, late ovata breviter acuminata integerrima, breviter uninervia; theca in ped. purpureo laevi arcuato mediocri recta, curvatura pedunculi ad latus speciana, ovata; perist. d. ext. rubri, apice albi, transversim striati, medio lenius pellucidi, interni ciliis binis. †.

Isothecium tenuifolium Brid. II. p. 383.

Patria. Insulae Australes: Banks?

H. murali affine videtur.

240. **H. Andrieuxii** C. Müll.; *dioicum;* cespites laxissime cohaerentes, humiles decumbentes *amoene lutescentes v. aurescentes;* caulis decumbens multoties dichotome divisus; rami curvuli breves homomallophylli *robustiores; tenuiusculi;* folia caulina subsecunda conferta, *breviuscula, oblongo-lanceolata, superne subobliqua,* profunde concava subcomplicata, margine *e basi usque ad apicem late revoluto,* superne parce dentato, nervo unico dimidiato complicato, cellulis angustissime linearibus pellucidis v. lutescentibus, alaribus multis laxe quadratis pellucidis; perich. e basi late vaginante laxissime reticulata amoene

ellucida enervi vel obsoletinervi in acumen breve la-
usculum acutatum subreflexum attenuata, subintegerrima;
ieca in ped. elongato purpureo *laevi* erecta, *elongate an-
uste cylindrica*, vix arcuata, aurantiaca; perist. d. ext.
eviusculi rufescentes involuti, int. *in membrana altius-
da libera flava laxe reticulata*, ciliis singulis latis ru-
mentariis.

Isothecium (*Entodon*) *Andrieuxii* Mont. in litt.

Patria. Mexico: Andrieux.

H. subcapillato proximo caracteribns expositis alie-
im. Pl. mascula femineae intermixta fragilis, floribus
inute gemmaceis deciduis intense fuscescentibus.

241. **H. pterogonoides** C. Müll.; *dioicum;* caulis
pens, ramis *vagis subfasciculatis assurgentibus curvu-
subtenuibus, obtusiusculis subjulaceo-foliosis, e lu-
scenti fuscescentibus, rigidiusculis;* folia caulina *dense
ibricata, vix homomalla, brevia anguste oblonga acuta
icatula*, concava, margine ubique anguste revoluto in-
gerrimo, nervo tenui ultra medium evanido, cellulis
nguste oblongis pallide lutescentibus subconflatis, alari-
is *ad basin totam infimam laxe quadratis turgidis am-
lis fuscis, decurrentibus;* perich. appressa longius acu-
inata; theca in ped. longiusculo recto laevi rubro *erecta
blonga angusta*, operculo conico acuto.

Leskea pterogonoides Harv. in Hook. Ic. Pl. Rar. t. 24. f. 8;
m descr. in Lond. Journ. of bot. 1840. p. 17.

Patria. Nepal: Wallich.

Quoad caracteres expositos species facile discernenda,
. *fulvo* et *leucostego* e structura interna affinissima.
hecam non vidimus.

242. **H. lucidulum** Hook. et Wils. (Fl. Antarctic.
. p. 418. t. 155. f. 1.); *dioicum?* caulis humilis ramosus,
spitosus mollis fragilis, ramis brevibus dichotomis den-
foliis obtusiusculis pusillis; folia caulina dense conferta
ecto-patentia vix secunda, pallide viridia nitida, ovato-
uminata, apice attenuata, caviuscula, tenera, concava,
argine integerrimo reflexa, nervo brevi tenui, saepius

furcato, cellulis angustissimis; perich. ovata brevi... minata, erecta, integerrima; theca in ped. longi... laevi rubro, apice incurvato inclinata, ovato-oblonga... attenuata, parva, brunnea; perist. d. ext. lutei, in... bescentes, ciliis binis. ♀.

Patria. Insula Eremitae, ad rupes humidas: ... Hooker.

Ex auctoribus *H. Seligeri* habitu subsimile, *H.* ... *nato* tamen affinius.

β. Pedunculus papillosus.

243. **H. oedistegum** C. Müll.; *monoicum;* ce... densi flavissimi nitiduli humiles; caulis repens, ... confertissimis robustiusculis ascendentibus brevibus ... ramulosis subcurvatis *subcompressis* vage ramosus; ... caulina laxe plumose imbricata, *vix subsecunda,* ... patula, *angustissime lanceolato-acuminata,* concava, ... perne subdenticulata, margine erecto, nervo *tenui* ... diato, cellulis angustissime linearibus elongatis densis ... rescentibus, alaribus *ad alas planas vix ullis, infima* ... *pluribus rectangularibus viridibus majusculis;* pe... late vaginantia longe et subreflexe tenuiter acum... maxime obsoletinervia, basi laxius reticulata, superne ... ridia, subdenticulata; theca in ped. mediocri rubro ... ferne *laeviusculo, superne scabriusculo* inclinata, ... *oblonga,* ore coarctata, subannulata, firma rufa ... *turgide conico obtuso apiculato;* perist. d. ext. ru... lutei, int. flaviduli subgranulosi vix hiantes, cilii ... aequilongis *nodosis* hyalinis.

H. pseudoplumosum? Mont. Ann. d. sc. nat. 1842. Cryp... gher. No. 12!

Patria. Montes Neelgherienses, in montibus ... lanchy: Perrottet.

Ab *H. pseudoplumoso* caracteribus laudatis longe ... versum.

244. **H. pseudoplumosum** Brid. (Sp. Musc. II ... 159.); *monoicum;* cespites *densi robusti* virides vel ... cescentes; caulis repens, ramis *confertis breviusculis*

sifoliis, apice saepius curvulis, ascendentibus, parce breviter ramulosis; folia caulina *dense imbricata, parum vel distincte secunda, magna, late ovata breviter acuminata, subintegerrima*, concava, margine erecto, nervo lato dimidiato, cellulis angustissime linearibus densis *firmis* viridibus, alaribus ad alas basilares plus minus ventricose impressas multis quadratis, *plerumque incrassatis, dein fuscidulis;* perich. late vaginantia, longe et parum reflexe acuminata, *subintegerrima, obsoletinervia*, elongate anguste areolata, *firmiuscula* virescentia; theca in ped. mediocri valido rubro *superne scabriusculo* inclinata, rufa, dein brunnescens, turgide gibboso-ovalis, operc. *conico brevissimo* concolori, annulo angustissimo arcte adhaerente; perist. robusti d. ext. inferne rubiginosi, int. flavi subgranulosi hiantes, ciliis binis longis capillaribus albidis *longe appendiculatis.*

Brid. II. p. 472. — *H. plumosum* auctorum, qui pedunculum scabrum declaravere. — *H. alpinum* Sm. Fl. Brit. III. p. 1330! Engl. Bot. t. 2071. — *H. aquaticum* Fk. Moost. p. 61. t. 44. fide Bridelii. — *H. laevisetum* Crome! in Magaz. d. Naturf. Freunde. 5. Jahrg. p. 78. t. 3. f. 5. 13; e spec. cum ped. scabro! — *H. saxatile* Brid. Musc. Rec. II. II. p. 153! — *H. asperulum* Brid. Sp. Musc. II. p. 169! — *H. polyrrhizon* Brid. Sp. Musc. II. p. 176! Spec. auctori a P. B. ex America donata. — *H. hygrophilum* Brid. olim in schedis. — *Leskea plumosa* Sw. Musc. Suec. p. 69. ex Schwägrichen. Suppl. III. 1. 1. t. 225. sub *H. plumoso*, quod huc pertinet!

H. asprellum Schw. Suppl. I. II. p. 246! — Brid. II. p. 480. E spec. detectoris Richard procul dubio huc pertinet.

Patria. Ad lapides humidas, praesertim rivulorum regionis montanae et subalpinae per totam Europam, usque ad Lapponiam. Ad lapides rivulorum Sudetorum „im Schnallensteinschen Forste" primus omnium, sed rarissime legit Seliger! In America sept. legit P. B. et Drummond, qui ad rupes madidas ad „Lake Superior" legit et sub nom. *H. plumosi* No. 177 edidit, primus omnium autem Richard. — *Junio.*

Notis cursive impressis facile cognoscitur. Habitus saepius *H. palustri β. subsphaericarpo* simillimus. Ab *H. plumoso* saepe commutato longe discrepat.

245. H. subcapillatum C. Müll.; *monoicum;* cespites lati depressi, sericeo-virides; caulis tenellus pusillus repens, ramis brevibus erectis subcurvulis; folia caulina conferta, *anguste vix secunda, ovato-acuminata, acumine longiusculo, profunde concava,* margine basi vix reflexo, *superne subdenticulato, nervo unico tenui ultramedio,* cellulis brevibus oblongo-linearibus dilute viridibus *majoribus,* alaribus *submultis laxe quadratis pellucidis;* perich. multo teneriora, vaginantia longius acuminata, flaccida, denticulata, ubique laxiuscule pellucide tenero-reticulata; theca in ped. erecto breviusculo flexuoso rufo, *ubique papilloso suberecta, ovato-oblonga, ore coarctato,* exannulata, operc. conico *oblique subulato;* perist. d. ext. lanceolati obtusiusculi intense rubri, intus valde cristati, carnosuli, linea diaphana *latiuscule* exarati, int. externis adglutinati subaequilongi, *haud secedentes, subcapillares tenerrime membranacei vix conspicui,* ciliis rudimentariis singulis.

Lasia subcapillata Brid. II. p. 202. — *L. scabriseta* Brid. olim. — *Pterigynandrum subcapillatum* Hdw. Sp. Musc. p. 83. t. 16. f. 9—12. — *Pterogonium subcapillatum* Schw. Suppl. I. I. p. 107. — *Pt. decumbens* Schw. Suppl. II. I. p. 32. t. 110!

Patria. America septentrionalis, haud frequens, soc. *H. intricati,* in Pensylvania a Mühlenberg ad arbores detectum. — *Sub aestatis finem.*

Ab *H. intricato* caracteribus expositis facillime distinguitur.

Incertae sedis.

246. H. ruderale Brid. (Sp. Musc. II. p. 160.); caulis repens, ramis tenellis brevibus angustis viridibus; folia dense imbricata, suprema vix secunda, anguste ovato-lanceolata, stricte acuminata, ob marginem valde revolutum subdenticulatum biplicata, nervo ultra medium evanido, cellulis angustis longiusculis pellucidis, alaribus perfecte quadratis laxiusculis pellucidis multis mollibus parvulis.

H. Stereodon ruderalis Brid. II. p. 585. — *H. viridulum* Brid. Sp. Musc. II. p. 181.

Patria. Hispaniola, in ruderatis: Poiteau.

Species distincta quidem, sed ob specimina valde incompleta Hb. Bridelii sedem certe non occupans. E structura folii interna *H. leucostego* affine.

247. **H. fulvum** C. Müll.; caulis repens vage ramosus, ramis brevibus *gracilibus, apicem versus subclavate incrassatis aurescentibus;* folia caulina *dense* imbricata, *vix subsecunda, anguste oblongo-lanceolata, subcomplicate concava, margine ubique valde reflexo, apice subserrulato,* nervo *dimidiato* canaliculate carinato, cellulis oblongis pallescentibus v. lutescentibus densiusculis, alaribus *submultis laxe quadratis amoene pellucidis* v. intus granulosis.

Leskea fulva Harvey in Hook. Ic. Pl. Rar. t. 23. f. 2. et c. diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 16.

Patria. Nepal: Wallich.

E caracteribus expositis facile discernendum, sterile tantum notum, quoad structuram internam *H. leucostego* affinibusque simile.

c. *Folia haud secunda.*

248. **H. Megapolitanum** Blandow (in Sturm. Deut. Fl. II. Fasc. 9.); *monoicum;* cespites late procumbentes virides; caulis repens, ramis *elongatis flaccidis laxe intertextis* subcompressis parum ramulosis vage ramosus; folia caulina *laxe* imbricata, *e basi subcordata impressa ovatâ acuminata, tenera, acumine brevi semel torto terminata, planiuscula,* margine infima basi reflexo ubique denticulato, nervo dimidiato carinato tenui, cellulis angustis longiusculis pellucidis teneris, alaribus ad alas impressas *multis quadratis intus granulosis;* perich. latiuscule vaginantia, *longe* subreflexe acuminata, obsoletinervia, laxissime pellucide reticulata, *tenerrima;* theca in ped. mediocri flexuoso laevi rubro inclinata *H. conferti;* perist. d. int. *valde hiantes,* ciliis binis *aequilongis valde appendiculatis.*

Brid. II. p. 491.

Patria. Per Germaniam, Galliam et in Pyrenaeis occidentalibus prope Aq. Tarbellicas: Spruce; in arenosis humidis umbrosis exsiccatisque inundatis rarius occurrit. In collibus arenosis sylvaticis prope Waren in terra Megapolitana Blandow copiose primus legit. In umbrosis ad terram lapidesque prope Cagliari Sardiniae m. Januarii formam majorem robustiorem legit Fr. Müller. – *Primo vere.*

Ab *H. conferto* saepius conjuncto virtutibus designatis certe refugit.

249. **H. raphidorrhynchum** C. Müll.; *monoicum; H. Megapolitano* simillimum, sed folia *anguste ovato-acuminata, haud cordata,* subdenticulata, e cellulis *angustissimis elongatis viridibus,* alaribus parum impressis *paucis subincrassate quadratis, haud amoene pellucidis, composita, firmiora;* perich. firmiora; theca longius pedunculata, *longius cylindraceo-oblonga, valde arcuata,* longissime aciculari-operculata, late annulata; perist. int. ciliis binis *haud appendiculatis.*

Patria. In sylvis primaevis prom. b. spei, prope Krakakamma (Distr. Uitenhage), ad lignum putridum copiose legit m. Jul. 1832 Zeyher.

250. **H. leptomerocarpum** C. Müll.; *monoicum; H. Megapolitano* simillimum, sed folia angustiora, *angustius longius densissime reticulata, ubique distincte serrulata, profunde carinata;* perich. *anguste* vaginantia *brevius stricte* acuminata, *enervia, robustius densius reticulata;* theca *minute* ovata, ore coarctata, annulata, operc. conico subito *maxime oblique* rostrato; perist. d. ext. *internis breviores, apice serrulati,* int. *subrugulosi* perforati, ciliis binis *rudimentariis.*

H. Megapolitanum Hsch. in Musc. Mexican. No. 1096.

Patria. Mexico, Xalapa: Schiede.

251. **H. cespitans** C. Müll.; *dioicum;* cespites latissimi decumbentes, viridissimi vel atro-virides; caulis longe repens, ramis brevibus teretibus strictis confertis subtenuibus assurgentibus vix ramulosis pinnatim vage

ivisus; folia caulina conferta appressa, *haud secunda, umore erecto-patentia*, subrotundate ovalia, breviter cuminata, concava, estriata, margine basi parum revo-ıto, apice vix conspicue denticulato, nervo ultra medium vanido viridi, cellulis brevibus *angustissimis* plerumque ordide chlorophyllose virentibus mollibus, alaribus *vix onspicuis* quadratis; perich. pauca appressa, e basi va-inante *minute tenerrime* reticulata pellucida enervi bre-iter stricte et acute acuminata, integerrima; theca in ed. breviusculo rubente *ubique papilloso erecta cylin-raceo-oblonga angusta brevis*, late annulata, operc. *co-ico brevi obtuso apiculato;* perist. d. ext. rufescentes, uperne subserrulati, int. angusti perforati flavi laeves, iliis 1—2 *brevissimis* albis laevibus.

H. cespitosum Wils. Engl. Bot. Suppl. t. 2878.

Patria. Anglia, in muris prope Warrington Lancashire, ubi Wilson detexit, quocum Martio 1847 legit W. P. Schimper, qui nobis benevole communicavit. Ad arborum radices in pratis irriguis arenaque suffusis prope Aquas Tarbellicas Pyrenaeorum occidentalium, ubi in planitie legit Spruce, cujus specimina nostro Montagne debemus.

H. murali habitu peraffine, sed notis laudatis primo adspectu distinguendum et pulchra species.

Incertae sedis.

252. H. clinocarpum Tayl. (Lond. Journ. of bot. 1848. p. 194.); dioicum? caulis procumbens subbiuncialis mplexus vage ramosus, ramis brevibus subcomplanatis; olia laxa patentia concava estriata, late ovata acuminata lentata, ultra medium uninervia; theca in ped. scabro pice decurvo ovato-oblonga inaequalis inclinata; perist. l. int. ciliis tribus brevissimis interpositis. †.

Patria. Monte Pichincha: W. Jameson, Decbr. 1846.

Auctor *H. rutabulo*, foliis confertioribus erectioribus plicatis et theca haud arcuata jam longe recedenti, comparavit.

Subsectio III. **Isothecium** Brid. II. p. 355, emend. — Caulis decumbens vage ramosus plus minusve robustus; folia ovato-lanceolata vel acuminata, *distincte plicata*, e cellulis elongatis mollibus areolata, erecto-conferta, plus minusve subsecunda, plumose imbricata.

A. *Theca erecta.*

253. H. sericeum L. (Sp. Pl. p. 1595); *dioicum*; cespites latissimi decumbentes sericeo-lutei; caulis longe repens et saepius longe prostratus, ramis fastigiatim confertis erectis *curvatis* v. pinnatim dispositis appressis, breviter ramulosis, attenuatis sciuroideis; folia caulina plumulose imbricata subsecunda, lanceolata longiuscule acuminata acutissima, stricta, margine inferne revoluto vix denticulato, plicis pluribus profundis, nervo subvalido viridi ante apicem evanido, cellulis angustissime linearibus luteis vix pellucidis densis, alaribus multis minute quadratis pellucidis pachydermibus; perich. multo longius acuminata erecta nervosa plicata; theca in ped. purpureo scaberrimo tortili *erecta subcylindrico-elliptica microstoma cernua pallida* anguste annulata, operc. conico oblique acuminato; perist. d. ext. anguste lanceolato-subulati rufescentes dense trabeculati intus tenuiter cristati, int. in membrana flavida *rugulosa angusti breves solidi rugulosi*, ciliis singulis *rudimentariis* interpositis.

Isothecium sericeum Spruce in Musc. Pyren. No. 76. — *Leskea sericea* Hdw. Musc. Fr. IV. p. 43. t. 17. — Brid. II. p. 295. — *Neckera sericea* Hdw. Fund. Musc. II. p. 93. — Hypnum vulgare sericeum recurvum, capsulis erectis cuspidatis. Dill. Musc. p. 325. t. 42. f. 59.

Patria. Per totam Europam et in America septentrionali, e Canada usque ad Rocky Mountains, in terra, ad saxa, rupes et arborum corticem vulgare. — *Hyeme et vere.*

Ab *H. lutescente* caracteribus laudatis distinguitur.

254. H. Philippianum C. Müll.; *dioicum; H. sericeo* simillimum, sed *rami siccitate erecti*, minus sericei, folia *excurrentinervia;* theca in ped. *sublaevissimo;* perist. d. ext. *pallidi tenuiter membranacei, intus haud cristati,*

articulate trabeculati, interni *pallidi* lineari-subulati solidi tenerrime papillosi.

Isothecium Philippianum Spruce in Musc. Pyr. No. 77 et Ann. and Mag. 1849. Musc. Pyr. No. 88.

Patria. Ad saxa calcarea Pyrenaeorum, in umbrosis montis Lhieris, prope Bagnères-de-Bigorre; in rupibus graniticis sylvae Bois de Gouerdère dictae, prope B.-de-Luchon, in zona montosa superiore: Spruce auctumno et hyemis initio legit.

Species revera distinctissima!

255. H. luteolum C. Müll.; *dioicum!* cespites latissimi prostrati laete virides v. lutescentes subsericei; caulis longe repens prostratus, ramis remotis decumbentibus substrictis parce divisis sciuroideis; folia caulina dense conferta, humore erecto-patentia, e basi late ovata longe acuminata, pluries profunde plicata, margine ubique valde revoluto subdenticulato, nervo ultra medium evanido, cellulis *angustissime linearibus luteis vix pellucidis densis*, alaribus multis *minute quadratis, intus granulosis v. parum pellucidis*; perich. e basi late vaginante longissime acuminata, obsoletinervia, interna ante acumen emarginate dentata, caetera subintegra, elongate laxe pellucide reticulata; theca in ped. mediocri rubro laevissimo erecta, *longiuscule* anguste cylindrica arcuata, macrostoma, fusca, exannulata, operc. conico breviter oblique acuminato; perist. d. ext. in acumen capillare subserrulatum attenuati lutei, int. laeves flavi hiantes longi, ciliis singulis v. binis capillaribus longis nodosis albis tenerrimis.

H. laetum Sendtner in schedis!

Patria. Bayerbrunn prope Monachium, in „Nagelfluhe" inter fruticeta, *H. lutescenti* consociatum: Sendtner. — *Per totam hyemem.*

Ab *H. laeto* Brid. caracteribus cursive impressis longe differt; ab *H. lutescente* pedunculo laevissimo et theca erecta primo adspectu distinguitur.

256. H. laetum Brid. (II. p. 479.); *monoicum! H. luteolo* simillimum, sed folia *elongate pellucide laxius re-*

ticulata, cellulis alaribus *laxe quadratis distincte pellucidis*; theca *brevior*.

Patria. America septentrionalis, respublica Massachusets in vicinia urbis Deerfield: Dewey, e cujus collectione Torrey ad Bridel misit.

Non satis notum.

257. H. congestum Sw. (Prodr. Fl. Ind. Occ. p. 142.); *dioicum*; caulis longiusculus declinatus, ramis confertissimis simpliciusculis brevibus patentibus teretibus robustiusculis erectiusculis vel declinatis, apice *leviter curvatis dilute viridibus nitentibus*; folia caulina longe lanceolata plicata subsecunda integerrima, nervo ante apicem evanido; perich. lanceolata conniventia; pedunculi numerosi erecti rubri *breves* (laeves?); theca *minuta ovata erectiuscula*, *rarius e curvatura pedunculi subnutans*, fusco-rubra, operc. convexo oblique rostellato saturate rubro; perist. d. ext. rubri, int. albidi brevissimi. †.

Hdw. Sp. Musc. p. 283. t. 74! — *Leskea congesta* Brid. II. p. 323 ex parte!

Patria. In insula Jamaica, ad truncos vetustos, regione temperatiore: Swartz. Insula Antillarum Montserrat, unde habuit Hedwig, an verum autem, dubii sumus.

Ab *H. aureo*, quocum Bridel confudit, toto coelo distat.

B. *Theca inclinata.*

a. *Pedunculus laevis.*

α. Inflorescentia monoica.

258. H. plumosum L. (Sp. Pl. p. 1592.); *monoicum!* cespites lati laxe cohaerentes lutescentes; caulis repens, ramis elongatis flexuosis *flaccidis* sciuroideo-attenuatis lutescentibus parce breviter ramulosis vage ramosus; folia caulina *laxe imbricata*, humore patula, magna, late ovata longe latiuscule acuminata, subdenticulata, laeviter striata, caviuscula, margine *erecto vel vix reflexo*, nervo dimidiato, cellulis pellucidis mollibus *longiusculis* pallidis,

alaribus ad alas basilares *impressas* decurrentes *paucis* laxioribus quadratis *parum distinctis;* perich. late vaginantia, longe reflexe acuminata, obsoletinervia, longius et laxius reticulata, *subintegerrima;* theca in ped. elongato rubro laevi inclinata gibboso-ovalis, rufa, exannulata, operc. conico acuto concolori; perist. d. ext. robusti rubiginosi, superne lutei, latere integri, int. flavi subgranulosi valde hiantes, ciliis binis brevioribus *appendiculatis* granulosis albis *saepius obsolete evolutis.*

Brid. II. p. 475. — Hedw. Musc. Fr. IV. p. 37. t. 15! — H. repens, filicinum plumosum. Dill. Musc. p. 280. t. 35. f. 16??

β. salebrosum; folia profunde plicata, margine plica ubique distinctius reflexo et distinctius denticulato vel serrato; perist. int. cilia perfecta capillaria vix appendiculata. *H. salebrosum* Hoffm. Deutsch. Fl. II. p. 74. — Brid. II. p. 477. c varietatibus! — *H. fasciculatum* Lam. Encycl. Meth. Bot. III. p. 177. fide Bridelii. — *H. capillaceum* Starck in Brid. Sp. Musc. II. p. 174! et Br. univ. II. p. 481. — *H. Thomasii* Brid. Sp. Musc. II. p. 175!

Patria. Per totam Europam temperatiorem, in Scandinavia hucusque in Gothia boreali, praeprimis ad fossarum latera, in pratis, ad rupes et saxa sylvarum umbrosarum. Var. *β.* per totam Europam usque in Lapponiam. — *Vere.*

Ab *H. glareoso* et *albicante* caracteribus laudatis longe differt.

259. **H. lamprocarpum** C. Müll.; *monoicum;* cespites latissimi *mollissimi sericeo-pallescentes;* caulis decumbens repens, ramis decumbentibus flexuosis elongatis attenuatis flaccidis pinnatim divisis, saepius iterum breviter ramulosis vage ramosus; folia caulina laxe imbricata subsecunda, *e basi angustatâ anguste ovato-acuminata* longiuscula, leviter plicata, caviuscula, margine leviter revoluto, sursum serrulato, nervo ultra medium evanido tenui, cellulis elongatis pellucidis, alaribus *planis, nec decurrentibus nec impressis,* quadratis pellucidis laxiusculis paucis; perich. *anguste* vaginantia, longe flexuose pilifera, denticulata, laxius reticulata, enervia; theca in

ped. brevi rubro laevi *parum inclinata, saepius erecta, oblonga, nitido-badia, brevis*, ampliuscula; perist. *H. plumosi.*

Patria. Java, ubi in montosis ad truncos ramosque *Gnaphalii Javanici* m. Novbr. legit Junghuhn.

H. plumoso simillimum, caracteribus autem expositis facile discernibile. Operculum non observavimus.

260. H. oxycladon Brid. (Sp. Musc. II. p. 128.); *monoicum;* caulis *humilis* prostratus, utrinque ramis brevibus simplicibus tenuiusculis acutis vel fasciculatim divisis assurgentibus strictis luteo-viridibus subsericeis pinnatim vel vage ramosus; folia caulina conferta parum secunda, *anguste lanceolato-acuminata, laeviter biplicata,* stricta v. curviuscula, vix denticulata, cellulis alaribus laxiuscule quadratis tenuibus intus granulosis; perich. nervata, interna longe subfiliformi-attenuata, *haud plicata;* theca in ped. *laevi* inclinata *ovalis aequalis,* operculo *conico obtuso, recto;* perist. d. int. *haud hiantes,* ciliis longis teneris albidis singulis interpositis.

Brid. II. p. 423. — Schw. Suppl. III. II. 2. t. 285. — *H. attenuatum* Brid. II. p. 448, foliis densius areolatis magis plicatis.

Patria. Pensylvania: Mühlenberg.

Ab *H. lutescente* haud dissimili caracteribus expositis toto coelo distat.

β. Inflorescentia dioica.

261. H. albicans Neck. (Meth. Musc. p. 180.); *dioicum;* cespites densi luteo-virides *pallidi sericei;* caulis repens, ramis *teretibus gracilibus erectiusculis longiusculis amoene sciuroideis,* summo apice tantum attenuatis vage ramosus; folia caulina dense conferta, humore patentia, vix secunda, late ovata, in acumen longum subtenue strictum attenuata, valde concava plicata, margine ante acumen *ubique maxime et amoene revoluto* subintegerrimo, nervo dimidiato, cellulis breviusculis pellucidis mollibus, *alaribus ad alas basilares amoene et longe decurrentes permultis laxe quadratis amoene hyalinis;* pe-

rich. e basi late vaginante laxissime reticulata pellucida tenera apice subsinuato-emarginatâ longissime capillari-acuminata stricta v. reflexa, interna enervia; theca in ped. mediocri rubro laevi inclinata *parva turgide gibboso-ovalis* brunnea, angustissime annulata, operc. *conico brevissimo* concolori; perist. d. ext. robusti rubiginosi, intus valde cristati, int. in membrana flava alta densissime reticulata angusti valde perforati laeves, ciliis binis brevibus pallidis.

Brid. II. p. 492. — Hedw. Musc. Fr. IV. p. 13. t. 5. — *H. rivulare* Brid. Musc. Rec. II. II. p. 177. — *Neckera albicans* Willd. Prodr. Fl. Berol. No. 940. — *H. flavescens* Roth. Fl. Germ. III. p. 303. — *H. albicans β. flavescens* Brid. II p. 494. — Hypnum sericeum, gracile, albicans, capsulis subrotundis. Dill. Musc. p. 328. t. 42. f. 63.

Pterigynandrum cirrhosum Brid. II. p. 184 procul dubio e spec. auth. huc revocandum. — *Maschalocarpus Weinmannianus* Spreng. ex Bridel.

Patria. In apricis, ericetis, collibus pascuisque arenosis per totam Europam temperatiorem in regione montosa atque in planitie. In America septentrionali. In locis humidis caulis multo robustior et ramosior, sed rarius fertilis observatur. — *Primo vere.*

Caracteribus laudatis facile discernibile.

262. **H. glareosum** Bruch (in schedis); *dioicum; H. albicanti* simillimum, sed rami *multo robustiores et ramosiores,* sericeo-lutescentes v. intense virides; folia caulina majora, *longissime* acuminata, profundius plicata, superne saepius undulata, cellulis *elongatis* laxioribus, alaribus *indistinctioribus* laxioribus; theca *major oblonga cernua,* operculo *longius acuminato acutiori.*

H. albicans γ. Minnidunense Brid. II. p. 494. — *H. salebrosum* H. et T. Musc. Brit. p. 166. t. Suppl. 5. ex parte fide *Sprucei*! — *H. lutescens* Drumm. Musc. Amer. No. 174!

Patria. Locis umbrosis ad terram et rupes hic illic per totam Germaniam, in regione montosa atque planitie; in Suecia ex Ångström; in Anglia teste Spruce; in Vogesi arenosis: W. P. Schimper; circa Minnidunum Helvetiae in montibus salebrosis primus legit Bridel. Ad

radices arborum Americae septentrionalis legit Drummond. Verosimiliter praetervisum! — *Primo vere.*

Inter *H. albicans* et *plicatum* medium tenet; a posteriori differt: ramis flaccidioribus magis compressis, foliis vix secundis, minus plicatis, elongate laxiuscule areolatis, quorum alae basilares laxissime reticulatae et perist. interno.

263. H. implicatum Hornsch. (in Musc. Capens., Mundt et Maire lectis!); *dioicum;* cespites latissimi dense *implicati molles pallescentes* procumbentes; caulis longe repens, ramis *subpinnatim breviter ramulosis* vage ramosus, ramulis *subcurvulis subsericeis;* folia caulina dense conferta, humore subplumose patula, parvula, *e basi late ovata concava subito fere in acumen strictiusculum plus minus crispato-cirrhosum* longiusculum producta, biplicata, margine *ubique convexo vix denticulato,* nervo ante acumen evanido viridi tenui flaccido, cellulis elongatis *pellucidis,* alaribus ad alas convexas, haud impressas, quadratis *laxioribus valde pellucidis;* perich. e basi anguste vaginante laxissime reticulata obsoletinervi longissime reflexe acuminata, vix denticulata; theca in pedunculo longiusculo laevi purpureo inclinata, subcernuo-oblonga, brunnescens, sicca ore coarctata; perist. d. ext. robusti rubiginosi, int. flavidi subpunctulati hiantes, ciliis teretibus subrugulosis albidis.

Patria. Prom. b. spei, Hangklipp: **Mundt et Maire.**

Praeter notas laudatas teneritate caulis sericeique cognoscendum et *H. sericeo* haud dissimile.

264. H. Buchananii Hook. (Trans. of the Linn. Soc. Lond. IX. p. 320. t. 28. f. 3.); *dioicum;* cespites late prostrati molles pallide lutescentes sericei; caulis repens, ramis longiusculis, ramulis *deorsum curvulis breviter pinnatis* attenuatis vage ramosus; folia caulina densiuscula imbricata, e basi *anguste ovata* longiuscule *parum oblique* acuminata, *laeviter plicata,* concava, margine ubique *fere convexo* denticulato, nervo tenui ante acumen evanido, cellulis *angustissime linearibus densis teneris pal-*

scentibus mollibus, alaribus ad basin convexam *paucis rvis* quadratis, intus granulosis; perich. e basi vagi- nte longissime reflexe et tenuiter acuminata subinte- rrima tenerrima elongate laxe pellucide reticulata ener- a; theca in ped. mediocri laevi rubro inclinata majuscule longa *exannulata*, operc. conico brevi; perist. d. ext. biginosi, superne subserrulati, int. flavi laeves subper- si, ciliis binis teneris albis nodosis.

Schw. Suppl. III. I. 1. t. 224. — Brid. II. p. 423.

Patria. Nepal: Buchanan; ex India orientali in is non designatis collectum ex Hb. Sendtneriano cepimus.

Ab *H. glareoso* caracteribus expositis longe differt.

265. H. subplicatum Hmp. (in litteris!); *dioicum;* ulis elongatus crassus lutescens, ramis elongatis robu- is lutescentibus apice vix curvulis v. cuspidulatis di- otome divisus; folia caulina dense conferta, majuscula, x conspicue secunda, *latissime rotundate ovata, ex apice tusiusculo in acumen piliforme breve flexuosum pro- cta, parce leviter (haud profunde sulcate) plicata*, con- va, margine *ubique erecto* obsolete denticulato, nervo nuissimo, ultra medium evanido, *haud canaliculato*, cel- lis *elongatis laxiusculis* mollibus pellucidis, alaribus mul- *laxe quadratis amplis* pellucidis; perich. late vaginan- a, longius acuminata, laxius reticulata; theca in ped. evi mediocri aurantiaco valido flexuoso inclinata.

H. rutabulum var. 5! Hook. et Wils. in Fl. Antarct. II. p. 418!

Patria. Insulae Falklandi, in fontaneis cespites la- s sistens: J. D. Hooker.

Ab *H. plicato* simillimo notis datis longinquum.

266. H. plicatum Schleich. (Cent. IV. n. 27.); *dioi- um;* caulis procumbens elongatus, vage ramosus, ramis *ongatis iterum divisis vel brevibus simplicibus cras- uscule teretibus* apice subcurvatis luteo-viridibus sub- nnatus; folia caulina erecto-conferta subsecunda, late nceolato-acuminata longiuscula, *stricta, longitudinaliter lde plicata, dorso laevia*, margine ubique revoluto, apice

obsolete denticulato, nervo ultra medium evanido canaliculato, cellulis mollioribus brevibus densis pellucidis, alaribus multo paucioribus *regulariter quadratis pellucidis vix incrassatis* parvulis; perich. breviora subintegerrima, basi laxius reticulata; theca in ped. purpureo *breviusculo breviter arcuato-oblonga nitido-badia,* operc. conico *brevi;* perist. d. ext. angustiores aurantiaci, int. latiusculi flavidi subhiantes breviores, ciliis singulis brevibus albidis.

H. Stereodon plicatus Brid. II. p. 636. — *H. Moretii* Garovagl. fide De Notaris.

Patria. Ad saxa praecipue calcarea alpium totius Helvetiae, ubi in monte La Varaz detexit Schleicher. In Jura tractu legit W. P. Sch.; in „Heiligenbluter Tauern" Carinthiae: Funk; in alpibus Bavariae: Sendtner; Italia, in sylvis montanis provinciae Novariensis et in m. Baldo: De Notaris, in montibus ad Larium: Garovaglio; in Pyrenaeis ad saxa praecipue granitica: Spruce. — *Aprili, Majo.*

Caract. laudatis ab *H. rugoso* haud dissimili distinctissimum et primo momento *Hypni glareosi* formam maximam referens.

Infloresc. ignota.

267. **H. conostomum** Tayl. (Lond. Journ. of bot. 1848. p. 194.); dioicum? caulis decumbens, ramis erectis divisis subcomplanatis albide viridibus *nitidis crassioribus* folia caulina arcte imbricata arctiuscula, e basi cordato-ovata *valde concavâ longe tenuiter acuminata, tenuius serrulata,* margine reflexa, siccitate distincte humore minus plicata, nervo *brevi;* perichaetium *angustius;* theca in ped. laevi ramos haud superante leniter incurva cylindrica, operc. conico; perist. d. int. imperforati, ciliis binis interpositis. †.

Patria. Monte Pichincha Andium Quitensium: W. Jmeson, Majo 1847.

Ab *H. laeto* Brid. ex auctoris ratione caracteribus expositis differt.

268. **H. Kamounense** Harvey (in Hook. Ic. Pl. Rar. t. 24. f. 10.); caulis longe repens vage pinnatus, ramis simplicibus curvatis assurgentibus *teretiusculis* subattenuatis *robustiusculis, virentibus, inferne fuscescentibus;* folia caulina conferta, late ovata longe acuminata, concava, plicata, *acumine tenui plano flexuoso*, nervo lato brevi, margine serrulato; perich. longius acuminata recta, similia; theca in ped. longiusculo valido laevi rutilante subinclinata *turgide ovato-oblonga*, operculo *conico mammillato;* perist. robusti d. interni hiantes flavidi, ciliis *ternis* interjectis. †.

Cum diagnosi in Lond. Journ. of bot. 1840. p. 19. — Schwägr. Suppl. IV. t. 323!

Patria. India orientalis, Kamoun: Wallich.

Ex ic. *H. plumoso* affine, caracteribus laudatis tamen sat distinctum videtur.

Species incerta.

1. **H. Weinmanni** Nees ab Es. (in litt. ad Weinmann!); caulis repens ramosus, ramis erectis subsimplicibus teretibus ut plurimum ad unum latus spectantibus confertis inaequalibus; folia caulina imbricata erecto-patula ovato-acuminata integerrima enervia, concava, margine apicem versus involuto, elongate areolata, subnitentia; perich. ext. lanceolata acuminata reflexa, int. longe crinita torta integerrima enervia; theca in ped. longiusculo solitario, inferne purpureo superne lutescente laevi subcylindracea, longiuscula incurva, lutescenti-viridis, dein fuscescens, operc. conico-rostellato recto et curvulo, apice purpurascente. †.

Weinmann in Bull. de la soc. imp. des Naturalistes de Moscou 1845. p. 477.

Patria. In imperio Rossico, prope Pawlowam in regione Zarskoeseliensi anno 1821 ad basin truncorum aestate legit Weinmann; in Gubernio Olonetziano: Olbers.

Hypnis plumosis laevisetis auctor adscripsit.

b. *Pedunculus scaber.*

α. Inflorescentia monoica.

269. H. subpilosum Hook. et Wils. (Lond. Journ. of bot. 1844. p. 553.); *monoicum;* caulis decumbens, ramis crassiusculis teretibus parce et breviter ramulosis lutescentibus subfastigiatim divisus; folia caulina dense conferta, *late ovato-lanceolata, acumine longiusculo flexo terminata*, pluries plicata, ubique denticulata, margine inferne latiuscule reflexo, nervo latiusculo *ultramedio*, cellulis anguste linearibus lutescentibus subpellucidis, alaribus ad alas basilares valde convexas parum impressas, majuscule rectangularibus pellucidis multis; ped. superne scabriusculus.

Fl. Antarct. II. p. 418. t. 154. f. 4.

Patria. Cap. Horn, in insula Eremitae: J. D. Hooker sterile legit.

H. albicanti vel *pilifero* simile, ab *H. populeo*, cui pedunculo affine, caracteribus laudatis distat. Theca nondum observata.

270. H. populeum Hedw. (Sp. Musc. p. 278. t. 70.); *monoicum; H. filiformi* simillimum, sed folia anguste ovata, subsecunda, in acumen *longissimum* strictum sensim attenuata, densissime lineari-areolata, firma, viridissima, margine *inferne revoluto*, nervo *in cuspidem excurrente;* perich. longe anguste vaginantia, in acumen longissimum *reflexum* producta, *ubique tenuiter elongate laxe reticulata*, vix denticulata, nervo *tenuissimo* obsoleto; theca in ped. *inferne laevi, superne scabriusculo* subinclinata, *breviter turgide* gibboso-ovalis, intense rubra, operc. *conico acuto brevissimo*, annulo *imperfecto angusto arcte adhaerente.*

Brid. II. p. 470. — *H. saxicola* Voit. in Sturm. Deut. Fl. II. Fasc. 12. — *H. implexum* Turn. Musc. Hib. p. 173. t. 16. — *H. viride* Lam. Fl. Franç. I. p. 536! — *H. erythropodium* Brid. Sp. Musc. II. p. 281! Pedunculo elongato! — *H. polysetum* Blandow in schedis. — *H. concinnum* Hartm. Sk. Fl. Ed. 5. 1849. p. 328. e spec. auth. certe huc pertinet!

Patria. Per totam Europam ad arbores et saxa, rarius ad terram. — *Auctumno et hyeme.*

271. **H. trachypodium** C. Müll.; *monoicum; H. populeo* simillimum, sed rami breviores, folia anguste ovata, longe stricte tenuiter acuminata, *teneriora*, plicata, concava, margine *ubique erecto* denticulato, nervo *tenuissimo ad medium evanido*, cellulis angustissime linearibus longioribus *tenerioribus*, alaribus ad alas basilares *vix ullis paucissimis minutissime quadratis inanibus;* perich. pallidissima, *late* vaginantia, in acumen longum tenue plerumque strictum attenuata, *intima ante acumen sinuato-erosa, enervia;* theca in ped. *ubique scabriusculo* rubro subvalido inclinata, turgidiuscule gibboso-ovalis, *deoperculata ore valde coarctata*, rufa, dein brunnescens; operc. conico; perist. *H. populei.*

Isothecium trachypodium Brid. II. p. 766!

Patria. Carinthia, in rupibus „auf dem Heiligenbluter Tauern": Funk 1826; in alpe Pasterze legit amicissimus Haro Bargen mense Augusti 1842.

272. **H. rutabulum** L. (Sp. Pl. p. 1590.); *monoicum;* cespites latissimi procumbentes mollusci pallide virides; caulis maxime vage ramosus, ramis pinnatim dispositis inaequalibus longiusculis compressiusculis laxifoliis robustiusculis curvatis attenuatis *flaccidis;* folia caulina laxe imbricata patula, *latissime ovata longiuscule acuminata magna*, biplicata, margine erecto v. basi infima tantum revoluto, ubique *denticulato*, nervo lato viridi ultra medium evanido saepius furcato, cellulis elongatis *valde pellucidis mollibus*, alaribus paucis quadratis pellucidis *parum distinctis;* perich. multa late vaginantia, in acumen longissimum latum attenuatum valde reflexum producta, vix denticulata, ubique multo laxius reticulata, enervia, margine superne undulata; theca in ped. longiusculo crasso purpureo ubique maxime papilloso subhorizontalis turgide gibboso-ovata cernua, rufa, pachydermis, late annulata, operc. turgide conico acuminato recto concolori; perist. robustissimi d. ext. late lanceolati longe subulati, inferne dense

trabeculati rubiginosi, superne serrulati pallidi granulosi, interni aequilongi robusti lati in acumen capillare granulosum attenuati, flavi laeves, valde hiantes, ciliis 2—4 albidis granulosis appendiculate nodosis interpositis longis.

Brid. II. p. 485. — Hdw. Musc. Fr. IV. p. 29. t. 12! — H. dentatum, vulgatissimum, operculis obtusis. Dill. Musc. p. 295. t. 38. f. 29. A! et B?

H. rutabulum β. longisetum Brid. II. p. 487! — *H. rut. γ. exiguum* l. c. in Hb. Brid. deest. — *H. rut. δ. flaccidum* l. c.! — *H. rut. ε. aureo-virens* l. c.! — *H. rut. ζ. explanatum* l. c.! — *H. rut. η. crenulatum* l. c. vel *H. crenulatum* Sm. Engl. Bot. t. 1261 fide Hookeri.

β. campestre; pedunculus parum scaber; perist. int. cilia minus appendiculata. *H. campestre* Bruch in schedis! — *H. affine* Bruch in Hb. Bridelii! — *H. geniculatum* Schleicher! e spec. auctoris.

Patria. Per totam Europam, ad terram, lignum putridum, saxa et rupes, vulgatissimum et polymorphum. In America septentrionali. Var. *β.* Locis siccioribus. — *Hyeme et vere.*

Ab *H. chrysostomo* caracteribus laudatis distinguitur.

β. Inflorescentia dioica.

273. H. chrysostomum Rich. (in Michaux. Fl. Amer. Bor. II. p. 319.); *dioicum; H. rutabulo* simillimum, sed *rigidiusculum,* ramis subcuspidatis; folia caulina multo minora, *ovato-lanceolata breviter acuminata, densius areolata, irregulariter et plerumque profunde plicata, acumine pro more subtorto, alis basilaribus ob cellulas alares laxiores distinctiores plus minus ventricose impressis* decurrentibus; perist. internum ciliis *binis* interjectis; operculum longius acuminatum.

H. rutabulum Drumm. Musc. Amer. No. 178! — *H. vagans* Drumm. Musc. Amer. No. 166! Pedunculo papilloso! — *H. rivulare* Bruch in schedis cum speciminibus Bridelianis flavioribus omnino convenit! — *H. flavescens* Brid. Sp. Musc. II. p. 185. — *H. rutabulum ϑ. flavescens* Brid. II. p. 488. — *H. rutabulum κ. laxifolium* Brid. II. p. 488! — *H. rutabulum λ. chrysostomum* Brid. II. p. 489.

Patria. Ad Muggendorf Franconiae legit Nees ab Esenbeck; prope Bipontum Bruch; praeterea per regionis montosae Germanicae partem majorem ad lapides rivulorum et rupes humidas, sed praetervisum et valde polymorphum. Ex Ångström in Gothia Sueciae. In Pyrenaeis centralibus et occidentalibus legit Spruce; Montagnes Noires: Requien; in insula Terre Neuve Americae septentrionalis La Pylaie; in Carolinae depressis humidis primus omnium legit Michaux; in locis umbrosis Canadae et in Rocky Mountains on the descent of „la grande Côte," to the westward of the „Height of Land": Drummond. Per Europam totam et Americam septentrionalem probabiliter distributum sit.

Ab *H. rutabulo* saepe commutato inflorescentia dioica certe distinguitur.

274. **H. piliferum** Schreb. (Spic. Fl. Lips. p. 91.); *dioicum;* caulis longissimus decumbens rigidiusculus maxime vage ramosus compressus, ramis pinnatim dispositis brevibus strictis simplicibus v. longis curvatis iterum pinnulatis rigidiusculis subcuspidatis viridibus v. pallescentibus subsplendentibus; folia caulina laxe conferta appressa, humore patula, *latissime ovata, ex apice obtuso in acumen piliforme longiusculum producta,* plus minus plicata, concava, ubique subdenticulata, cellulis angustis densiusculis alaribus in alis basilaribus magnis ventricose impressis longe decurrentibus multis laxis quadratis pellucidis, nervo ad medium evanido, margine erecto; perich. latissime vaginantia laxe reticulata tenera, in acumen longissimum tenue reflexum sensim attenuata, subintegerrima enervia; theca in ped. elongato scabriusculo rubro valido inclinata, turgide gibboso-ovata cernua, late annulata, operc. *conico longe oblique subulato;* perist. *H. chrysostomi.*

Brid. II. p. 489 ex parte. — Hdw. Musc. Fr. IV. p. 35. t. 14. — *H. Cassubicum* Dicks. Fasc. III. Pl. Crypt. p. 10.

Patria. Ad terram inter fruticeta, in sylvis aliisque locis umbrosis per totam fere Europam temperatiorem. — *Vere.*

Caracteribus accuratius expositis paucis jam distinctissimum et *H. chrysostomo* vel *rutabulo* habitu simile.

275. H. filiforme Lam. (Fl. Franç. I. p. 535!); *dioicum;* cespites *densiusculi prostrati;* caulis *filiformis* repens, ramis *tenuibus sciuroidibus attenuatis* flexuosis flavescentibus vix ramulosis longioribus v. brevissimis vage ramosus; folia caulina *dense appressa plumose imbricata, humore erecto-patentia, anguste ovata, in acumen longiusculum sublatum strictum sensim attenuata,* concava, plus minus plicata, ubique subdenticulata, nervo ultramedio, margine erecto, cellulis *dense elliptico-linearibus,* alaribus ad alas basilares *vix distinctas haud decurrentes minute quadratis paucis* intus granulosis; perich. *anguste vaginantia,* in acumen longum *distincte denticulatum strictiusculum* attenuata, *nervo lato ultramedio,* cellulis laxioribus *firmis apice densis;* theca in ped. mediocri subvalido rubro papilloso subinclinata, minor, gibboso-ovalis, late annulata, operc. conico longe oblique subulato; perist. *H. piliferi.*

H. Reichenbachianum Hübner Dresd. in Regensb. bot. Zeit. 1847. No. 41, c. tab. — *H. velutinoides* Bruch in schedulis! — *H. Flotowianum* Sendtner in schedis! — *H. piliferum β. filiforme* Brid. II. p. 491.

Patria. In sylvis ad arbores, Parisiis: Thuiller in Hb. Lamarck. et Bridel.. In Delphinatu: Dejean 1800 in Hb. Bridel.. In Hassia superiore legit Bruch in schisto argillaceo; in Hercyniae valle Bodethal dicta: Hampe; in Saxonia: Hübner; ad Sattler prope Hirschberg Silesiae: Flotow. Probabiliter per totam Europam mediam atque australiorem occurrens.

H. populeo simillimum, sed operculo longirostro obliquo primo adspectu distinctum. Ab *H. pilifero,* quocum Bridel conjunxit, notis laudatis longe diversum est.

276. H. lutescens Huds. (Fl. Angl. p. 421.); *dioicum;* cespites latissimi prostrati, lutescentes, inferne sordidi; caulis longissimus multoties divisus, ramis confertis attenuatis *strictis longiusculis crassioribus;* folia *H. seri-*

cei, sed caulina multo latiora et perichaetialia multo latiora et teneriora; theca *inclinata cernuo-oblonga* fusca anguste annulata, operc. conico brevius oblique acuminato; perist. d. *interni valde hiantes laeves*, ciliis *longis* singulis vel binis interpositis.

Brid. II. p. 466. — Hedw. Musc. Fr. IV. p. 40. t. 16. — *H. Cassubicum* Scop. Fl. Carn. ed. 2. n. 1327. — *Isothecium lutescens* Spruce in Musc. Pyr. Exs. No. 88. — *Climacium lutescens* Voit. Musc. Herbip. p. 79. — *Neckera lutescens* Willd. Prodr. Fl. Ber. n. 939. — *Leskea longifolia* Ehrh. Cr. Exs. n. 281. — Hypnum sericeum, surculis longioribus et teretioribus, capsulis incurvis. Dill. Musc. p. 325. t. 42. f. 60.

Patria. Per totam Europam temperatiorem vulgare, et in America septentrionali atque Asia boreali, in terra argillacea, calcarea et ad radices arborum: *Hyeme et vere.*

Ab *H. sericeo* notis cursive impressis longe differt.

277. H. aurescens C. Müll.; *dioicum; H. sericeo* simillimum, folia caulina *leviter biplicata*, margine *magis reflexo ubique integerrimo*, cellulis alaribus *creberrimis teneris laxius quadratis* pellucidis; perich. *flaccidissima, haud plicata enervia;* theca *inclinata cernuo oblonga macrostoma, dein nigrescens*, operc. *turgide cupulato mammillato recto; peristomium H. lutescentis.*

Brid. II. p. 469. — *Isothecium aureum* Spruce Ann. and Mag. of Nat. Hist. 1849. Musc. Pyren. No. 85. — *H. aureum* Lagasca in Ann. de Cienc. Nat. No. 14. Nomen illo Lamarckiano junius.

Patria. In Hispania detexit Lagasca; nuperius in Pyrenaeis copiose legerunt W. P. Schimper in Sierra Morena et Spruce in rupibus prope locum Espingo zonae inferalpinae. In Sardiniae australioris collibus: Moris, De Notaris, in monte Genargentu: Comba; in Italia ipsa: Bridel.

278. H. crassinervium Tayl. (in Mackay. Fl. Hib. II. p. 43.); *dioicum;* cespites densiusculi lati viridissimi procumbentes; caulis repens, ramis subascendentibus teretiusculis rectis v. curvulis, *humore turgidis;* folia caulina laxe conferta, haud vel vix secunda, late ovata, *latiuscule breviter* acuminata, *subestriata, cavitate ante*

acumen abrupta profunda, margine vix convexo, infima basi parum revoluto, superne subserrulato; nervo *latissimo, cum cavitate folii abrupto, superne constanter inaequaliter furcato*, cellulis viridissimis chlorophyllosis rhomboideo-ellipticis, alaribus ad alas paulisper decurrentes pellucide quadratis; perich. anguste vaginantia longiuscule stricte acuminata, vix denticulata, maxime obsoletinervia, laxissime pellucide reticulata; theca in ped. mediocri purpureo *ubique valde tuberculoso* inclinata subturgide oblonga gibbosa, ore subcoarctata, late annulata, operc. conico *longe aciculari obliquo;* perist. *H. Vaucheri.*

Wilson in Engl. Bot. Suppl. t. 270 b.

Patria. Ad rupes calcareas Hiberniae prope Cork detexit Taylor 1820, praeterea ad Mucruss circa Killarney: W. Wilson, ad Demkerron vulgare: Taylor; in Pyrenaeis centralibus: Spruce et W. P. Schimper m. Augusti; in Vogeso et Jura: W. P. Sch.; in tractu Taunus Germaniae occidentalis: Bayrhoffer; in Istria: Sendtner ad Moshieniza m. Aprilis fertile legit.

Ob vestigia exposita sp. distinctissima, ex operculo *H. piliferum* et *filiforme* spectans, sed foliorum structura primo momento distinguenda.

279. **H. Vaucheri** Lesq. (Enum. Musc. Helvet.); *dioicum;* cespites latissimi prostrati sericeo-lutescentes; caulis repens, *ramis ascendentibus, apice longius attenuato decurvo saepius radicantibus, ramulis fasciculatis tenuibus curvulis*, attenuatis; folia caulina dense plumose imbricata, vix secunda, late ovata, in acumen elongatum strictum subpiliforme sensim attenuata, concava subplicata, margine inferne revoluto, ubique subdenticulato, nervo dimidiato, cellulis breviusculis subpellucidis, alaribus ad alas revolutas decurrentes laxius quadratis subpellucidis; perich. e basi late vaginante laxe reticulata enervi pellucidâ longissime reflexe acuminata, ad acumen sinuata, subdenticulata; theca in ped. mediocri valido rubro, inferne scabriusculo, superne *valde tuberculoso* inclinata turgide *gibboso-oblonga, ore coarctata*, annulata,

operc. conico *acuminato*; perist. d. ext. rubiginosi integri, int. flavi angusti valde hiantes laeves, ciliis binis tenerrimis longis nodosis albis.

Patria. Regione montosa et subalpina plerumque in saxis calcareis; prope Fleurier Helvetiae Neocomiensis: Lesquereux; in alpibus Julicis, Sadenza: Sendtner Aug. 1841 cum fruct. maturis; Bayerbrunn prope Monachium: Sendtner; in Pyrenaeis centralibus solo calcareo et in imis truncis saxisque graniticis: Spruce hyeme fertile legit.

Caracteribus expositis facile discernibile.

Subsectio IV. **Illecebrina.** Caulis *decumbens illecebrinus vage ramosus turgidus plus minus julaceo-teres*; folia estriata.

a. *Folia cochleariformia.*

280. **H. cochlearifolium** Schw. (Suppl. I. II. p. 221. t. 88.); caulis repens decumbens et subinde radiculosus *tenuis*, ramis subpinnatis *subsimplicibus* ascendentibus *ad apices quandoque radicantibus* flavide viridibus nitidis *teretibus acutiusculis turgidis, obtusis*; folia caulina *dense conferta*, e basi vix auriculata et vix excavata latissime rotundato-ovata, apice acutiusculo, marginibus superne distincte involutaceis, subcochleariformi-concava, obsoletinervia, cellulis incrassatis scariosis; perich. exserta multo minora anguste convolutacea breviter acuminata, inferiora minima ovata acutiuscula; theca in ped. tenui breviusculo anguste cylindrica parva recta, inclinato pedunculo subhorizontalis; perist. parvum, dentes ext. angusti, int. breves parum perforati, ciliis singulis interpositis.

Isothecium flexile Brid. II. p. 361 partim. — *H. flexile* Hook. Musc. Exot. t. 110! non Swartz!

Patria. Australasia: La Billardiere; Nova Seelandia, Dusky-Bay: Menzies; insulae Aucklandi et Campbelli antarcticae, usque ad altitud. 1400 pedum: J. D. Hooker.

281. **H. auriculatum** Mont. (in Voy. au pôle Sud, Crypt. p. 331. t. 20. f. 3.); ramus inordinate ramosus, ra-

mis elongatis *obtuse cuspidatis teretiusculis* pallide viridibus nitidis laxifoliis; folia *e basi maxime auriculata, cellulis alaribus in orbem magnum ventricosum complicatum dispositis magnis laxis albidis praedita vix excavata, subrotundato-ovata latissima, obtusissima* integerrima, marginibus erectis, subcymbiformia, pallide viridia, *latitudine longitudinem subaequantia*, nervo obsoleto brevi furcato saepe carente.

Patria. In freto Magellanico leg. Jacquinot.

Notis designatis pulcherrima species.

282. **H. chlamydophyllum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 552.); caulis sesquiuncialis vage ramosus turgidus, ramis uncialibus, ad apices ob folia arcte convoluta *cuspidatis* simplicibus turgidis; folia caulina imbricata patentia, e basi *subquadrata dilatate truncata*, cellulis *alaribus laxis praedita*, auriculatâ cochleariformi-rotundata obtusissima, valde concava, integerrima, pallide luteo-viridia subscariosa pellucida splendentia, nervo simplici infra medium evanido v. nervis duobus brevibus, cellulis anguste oblongis; perich. erecta; theca in ped. *elongato gracili* laevi rubro torto cernua v. horizontalis, ovato-oblonga angusta brunnescens, operc. brevi conico; perist. luteum. †.

Cum ic. in Fl. Antarct. I. p. 139. t. 61.

Patria. Insula Campbelli, ad terram: J. D. Hooker.

Ex auct. ab *H. cochlearifolio* caracteribus laudatis differt; *H. auriculatum* foliis basi lobate ventricose auriculatis recedit.

283. **H. concinnum** Wils. (Lond. Journ. of bot. 1848. p. 277. t. 10!); dioicum? caulis repens, ramis remotis erectis brevibus subincurvis clavato-teretibus julaceis turgidis; folia caulina dense appressa, rotunda cochleariformi-concava, *subapiculata*, basi *angustiore* margine reflexa decurrentia, nervo *dimidiato tenui*, crenulata, nitentia, cellulis *laxioribus;* perich. lanceolato-acuminata. †.

Patria. China, ad muros vetustos insulae Chusan: T. Anderson 1845.

Ex obs. auctoris *H. obtusifolio* Hook. in Drumm. Musc. Amer. No. 193. simillimum, sed foliis supra descriptis differre dicitur.

b. *Folia ovata.*

284. **H. Boscii** Schw. (Suppl. I. II. p. 223.); *dioicum*; caulis vage ramosus, ramis *turgide julaceis simpliciusculis mollibus viridibus, dein versicoloribus inaequalibus*; folia caulina madefacta et sicca dense conferta, e basi *majuscule et undulate auriculata*, cellulis alaribus *in orbem parvulum subventricosum dispositis incrassatis flavidulis* praedita vix excavatâ latissime ovata, acuminata profunde concava, marginibus haud involutaceis *denticulatis, nervis binis saepe in unicum longum tenuem conflatis*; perich. exserta, multo angustiora, acuminibus longis reflexis; theca in ped. flexuoso crasso purpureo laevi cylindrica cernua inclinata, operculo conico rostrato; peristr. majusculum.

Brid. II. p. 430. — *H. illecebrum* Hdw. Sp. Musc. p. 252. t. 66. f. 1. 2. — *H. illecebrum β. Americanum* Brid. Sp. Musc. II. p. 126. — *H. tumidiusculum* Lamarck e spec. auth.! — H. cupressiforme, rotundius, vel illecebrae aemulum. Dill. Musc. p. 311. tab. 40. f. 46. C.

Patria. Per Americam septentrionalem frequens, sed rarius fertile.

Ab *H. cochlearifolio* notis laudatis, ab *H. illecebro* pedunculo laevi jam differt.

285. **H. Berthelotianum** Mont. (Hist. d. Iles Canaries, p. 4. t. 1. f. 2.); caulis prostratus elongatus vage ramosus, ramis elongatis teretibus, ramulis inaequalibus subjulaceo-teretibus pinnatim dispositis breviusculis erectis robustis *apice* obtusis aureo-nitentibus subsimplicibus; folia caulina subjulaceo-imbricata, e basi semiamplexicauli parum auriculatâ *late ovato-lanceolata caviuscula, subdenticulata, acumine lato flexuoso longo hic illic undulato-constricto, siccitate torto, grossius inaequaliter dentato*, margine *erecto*, nervis binis subobsoletis pallidis, cellulis brevibus subellipticis submollibus virentibus, ala-

ribus auriculae *vix ullis quadratis pellucidis minutis;* perich. confertissima, late vaginantia longe acuminata, acumine recto reflexo v. semel torto, ubique subdenticulata, basi laxe pellucide reticulata, nervis obsoletis v. longis in unum conflatis; theca in ped. brevi valido purpureo laevi tortili horizontalis *magna turgide oblonga* exannulata, operc. *perfecte conico recte breviter acuminato;* perist. magni d. ext. rufescentes parum cristati, int. aequilongi flavidi valde hiantes, ciliis singulis brevioribus albidis.

Hypnum Hochstetteri Schimp. in Seubert. Fl. Azorica, p. 14 huc forsan pertineat.

Patria. Ad corticem arborum in sylva Agua Garcia insulae Teneriffae: Webb; in insulis Azoricis: Hochstetter.

286. H. illecebrum L. (Sp. Pl. p. 1594.); *dioicum;* cespites late procumbentes e viridi lutescentes v. aurescentes; caulis vage ramosus, ramis illecebris teretibus turgidis *incurviusculis,* saepius subpinnatim dispositis; folia caulina dense conferta, humore patula, e basi parum impressa *oblongo-ovata breviter subreflexe acuminata,* concava, margine erecto denticulato, nervo unico ultra medium producto, cellulis angustissime linearibus lutescentibus, alaribus parvulis pellucide quadratis; perich. e basi longe angusta vaginante, laxe pellucide reticulata concavà in acumen reflexum longum tenue attenuata, subintegerrima; theca in ped. longiusculo aurantiaco ubique valde papilloso inclinata, parva subgibbose ovalis, operculata subventricose turgida ore contracta brunnescens, late annulata, operc. conico apiculato; perist. d. ext. rufescentes, int. pallidi subpunctulati hiantes, ciliis binis valde appendiculatis longis albis teneris.

Brid. II. p. 428. — *H. blandum* Lyell in Hook. et Tayl. Musc. Brit. Ed. II. p. 176. Suppl. t. 5. — *H. Vaillantii* Thuill. ex Bridel. — *H. Touretii* Brid. II. p. 429! — *H. crassum* La Tourette in Hb. Bridelii! — H. cupressiforme, rotundius, vel illecebrae aemulum. Dill. Musc. p. 311. t. 40. f. 46. A. B.

Patria. In Germaniae occidentalis monte Taunus haud frequens legit Bayrhoffer; in pascuis herbidis

Italiae superioris et mediae raro, frequentius in Italia australi et insulis adjacentibus; inde per Helvetiam australem ad Galliam transiens, ubi circa Lutetiam primus legit Vaillant, usque ad Pyrenaeos occidentales, ubi Spruce observavit; praeterea in Anglia australi, ubi in Hampshire loco Cadnam Lane, New Forest detexit Lyell. In Algeria insulisque Canariensibus indicavit Montagne. E planitie ad zonam montosam, nunquam in montes editiores ascendens. — *Aestate.*

Ab *H. cirrhoso* notaculis datis differt; praeterea pedunculo scaberrimo facile discernibile.

287. **H. cirrhosum** Schw. (in Schultz. Reise auf den Glockner II. p. 365.); *dioicum; H. illecebro* simillimum, sed rami *stricti* turgidiores, folia latiora, *obtusa, ex apice obtuso in pilum longiusculum* reflexum producta.

Brid. II. p. 495 excl. speciminibus in insula Melville lectis, forsan ad *H. glareosum* pertinentibus! — *H. turgidum* Hartm. Sk. Fl. Ed. V. p. 328.

Patria. In summis alpibus Carinthiae, ubi in alpe Brennkogl detexit Schwägrichen, Tirolis, Salisburgiae, Bavariae et Helvetiae; in Herjedalia Sueciae collegit Thedenius.

Fructus nulli visus. Ab *H. illecebro* certe distare videtur.

288. **H. aureo-nitens** Hook. (in Schw. Suppl. III. I. 1. t. 221.); *monoicum;* caulis *longissimus lycopodioideo-decumbens turgidus,* ramis *elongatis crassissimis* brevibus simplicibus vel elongatis *parce divisis aurescentibus nitidis;* folia caulina dense imbricata appressa, humore erecto-patula, *e basi ob alas subconniventes coarctata angustiore auriculatâ latissime ovata, acumine latissimo sinuato-undulato longe tenuiter subulato terminata, concava,* estriata, nervo *tenuissimo ad acumen producto,* margine erecto vix conspicue crenulato, cellulis brevibus densis angustis conflatis lutescentibus, alaribus *paucis polygonatis parvis diaphanis;* perich. longissime acuminata;

theca in ped. brevi rubro laevi subinclinata anguste cylindrico-oblonga breviuscula badia; perist. d. ext. robusti rufescentes, int. flavi subpertusi, ciliis ternis longis articulatis albis.

Patria. Nepal Indiae.

H. illecebro v. cirrhoso habitu aliquando simile, vestigiis laudatis optime distinguendum. Fructus nobis non visus.

Subsectio V. **Cuspidaria.** Caulis *erectus vel assurgens, ramis turgidis cuspidatis.*

A. *Cellulae alares quadratae.*

a. *Folia uninervia.*

289. **H. stramineum** Dicks. (Fasc. II. Pl. Crypt. p. 6. t. 1. f. 9.); *dioicum;* cespites latissimi *laxissimi proceri straminei nitidi;* caulis erectus *filiformis teretiusculus laxe julaceus flaccidus, obtuse cuspidatus, ramis paucis distantibus erecto-patentibus obtuse cuspidatis subpinnatus;* folia caulina *ovato-oblonga ligulato-obtusa, subcymbiformi-concava, leviter plicata, margine erecto integerrimo,* nervo latiusculo infra apicem dissoluto, cellulis angustissimis densissimis pallide luteis, apice brevioribus incrassatis, alaribus multis laxissimis pellucidis ventricoso-impressis; perich. ubique laxe reticulata pellucida, apice breviter acuminato et sinuato-dentato; theca in ped. elongato flexuoso aurantiaco laevi subcylindrica arcuato-cernua aurantiaca inclinata exannulata, operc. conico acuto brevi; perist. d. ext. flavidi dense trabeculati, int. albidi, haud vel vix hiantes, 1—2 interjectis.

Hypnum Stereodon stramineus Brid. II. p. 568. — *H. obtusum* Vill. Pl. Dauph. III. n. 912.

Patria. In paludibus profundis plerumque sphagnosis graminosis totius Europae borealis et temperatioris atque Americae septentrionalis (e Canada usque ad Rocky Mountains) usque ad regiones polares. In ericetis paludosis Angliae Dickson primus detexit. — *Aestate,* sed rarissime fructificans.

290. **H. purum** L. (Sp. Pl. p. 1594.); *dioicum; H. Schreberi* simillimum, sed robustius turgidius, ramis saepe elongatis et iterum ramulosis; folia caulina *late ovata*, apice in acumen brevissimum *acutum* subcrenulatum attenuata, nervo *unico*, *interdum furcato*, *inferne lato*, *ad medium producto*, cellulis alaribus minoribus paucioribus *pellucidis albidis*; perich. superne denticulata; theca annulata robustior; perist. d. ext. *vix cristati*, interni *angusti haud serrulati*, *sed veluti geniculati*.

Brid. II. p. 425. — Hdw. Sp. Musc. p. 253. t. 66. f. 3—6. — *H. elegans* Ehrh. Crypt. Exs. n. 242. — H. cupressiforme, vulgare, foliis obtusis. Dill. Musc. p. 309. t. 40. f. 45.

β. illecebrum; caule procumbente vage ramoso, ramis inordinatis teretibus obtusis. Brid. II. p. 427. — *H. illecebrum* Brid. Musc. Rec. II. II. p. 91 et al.

Patria. In locis iisdem *H. Schreberi* plerumque associati. — *Vere*, rarius fructificans.

291. **H. cordifolium** Hdw. (Musc. Fr. IV. p. 97. t. 37.); *dioicum*; cespites *elati mollissimi lati amoene laete virides*; caulis assurgens flaccidus elongatus *inferne ramis brevibus paucis subpinnatus*, *parte superiore plus minus elongata simplicissima laxe vel remote foliosa*, *subcuspidata*; folia caulina magna, sicca erecta, *humore patentissima remota*, *e basi dilatata* inferne parum coarctatâ *oblongo-ligulata planiuscula v. marginibus involutis* integerrimis, *nervo latiusculo viridi ad apicem evanido*, cellulis elongatis angustissimis viridibus, apice summo minutis incrassatis, alaribus multis magnis laxis pellucidioribus parum ventricose impressis subdecurrentibus; perich. *late vaginate lanceolato-acuminata* laxius reticulata nervosa; theca in ped. elongato aurantiaco laevi *tenui* flexuoso *horizontalis* cylindracea arcuata, exannulata, operc. conico acuto; perist. *H. straminei*, interni dentes subrugulosi, ciliis longis 2—3 interpositis.

Hypnum Stereodon cordifolius Brid. II. p. 565. — *H. cuspidatum β. bicolor* Turn. Musc. Hib. p. 176. — *H. phyllorrhizans* P. B. Prodr. p. 67. — *H. fontanum* Schleich. Crypt. Helv. Exs. Cent. Cent. n. 53. — *H. crassum* Schumach. Pl. Saeland. II. p. 80?

β. compactum; compacte cespitosum, ramulis pro-
tis brevissimis valde pinnulatum, folia late cordato-l
lata obtusa planiuscula, parva, cellulis minutis incr
tis, alaribus maximis amoene pellucidis et ventrose
pressis. *H. cordifolium* Drumm. Musc. Amer. No. 209.

Patria. In locis graminosis aquosis per totam
Europam rarius et in America septentrionali. Prope
saliam Swartz primus legit. — *Vere.* Rarissime fr
ficans.

H. cuspidato proximum.

292. H. sarmentosum Wahlenb. (Fl. Lapp. p. 2
dioicum; caulis *prostratus* elongatus ramosus *purpura*
cuspidatus, ramis brevibus incurvis acutis *e viridi-*
purascentibus pinnatus, rigidiusculus; folia caulina
erecto-conferta *longiuscule oblongo-ligulata, acumine*
vissimo acuto introrsum inflexo terminata, cymbifo
concava v. plus minus planiuscula, integerrima,
purpurascente ante apicem evanido, cellulis angus
nearibus densissimis elongatis *purpurascentibus,* ab
multis laxis *pellucidis teneris magnis dein incrassatis*
reis planiusculis; perich. longe vaginanti-acuminata,
que tenerrime elongate laxe pellucide reticulata m
integerrima; theca exannulata et ped. *H. trifarii;* p
d. ext. longi lati lutei, latere diaphani, int. in me
tiuscula flaviuscula *lati haud hiantes, latere non*
ciliis binis longis appendiculatis.

H. trifarium β. sarmentosum Rabenh. Deutschl. Cryp
290. — *H. Stereodon stellatus ε. Terrae Novae* Brid. II. p.

Patria. In rupibus Lapponiae alpinis, ubi aqua
valis defluit, detexit Wahlenberg, dein Hübener
Dovrefjeld Norvegiae fertile legit; in summis Sudeti
„der weissen Wiese" et „am grossen Teiche": Nees
Esenbeck 1831; in Tiroli ad Rosskogl: Sendtn
Specimina tantum Norvegica fertilia vidimus. Insula Te
Neuve Canadae: La Pylaie.

Ab *H. cuspidato* haud dissimili colore purpurascente et foliis uninervibus primo momento distinguitur, ab *H. trifario* notis cursive impressis longe recedit.

293. **H. trifarium** Web. et Mohr. (Schwed. Reise, p. 177. t. 2. f. 2. a—d.); *dioicum;* caulis longissimus *julaceus teres turgidiusculus, inferne fuscus, superne laete viridis* splendens, ramis paucissimis *julaceis, basi filiformibus apicem versus crescentibus subclavatis apice cuspidatis* longiusculis divisus; folia caulina *dense appressa, rotundato-ovata, cochleariformi-concava, haud plicata,* margine erecto integerrimo, nervo tenuiore breviore, cellulis arctioribus brevioribus fuscis v. viridibus, alaribus multis *sublaxis pachydermibus viridibus,* parum ventricose impressis; perich. externa minuta, caetera late vaginantia oblonga breviter acuminata plicata *integerrima;* theca, pedunculus et perist. externum *H. straminei,* perist. interni d. flaviores *margine tenuissime limbati maxime hiantes,* in membrana magis et robustius reticulata positi, ciliis 2—3 interjectis.

Hypnum Stereodon trifarius Brid. II. p. 567. — *H. stramineum* β. foliis latioribus. Schw. Suppl. I. II. p. 212. t. 89. — *H. illecebrum* Schultz. Fl. Starg. p. 318. excl. Syn. Brid. *H. uliginosum.* — *H. uliginosum* Schleich. Cent. III. n. 54?

Patria. In paludibus profundissimis totius Europae borealis et temperatioris, praesertim in planitiebus turfosis Germaniae septentrionalis, usque in alpes ascendens atque in America septentrionali, ubique autem rarissime fructificans. — *Aestate.*

Ob vestigia laudata cum *H. stramineo* proximo nunquam conjungendum, pulcherrimum.

294. **H. nitens** Schreb. (Spic. Fl. Lips. p. 92.); *dioicum;* cespites altiusculi lati laxi *rigidi aureo-nitentes;* caulis erectus rigidus *subpungens durus,* ramis approximatis *subcompressis pungentibus rigidis duris subpatentibus* curviusculis, *foliorum imbricatione veluti plumosis;* folia caulina sicca et humore erecto-patentia *strictissima, e basi rotundatâ longiuscule late lanceolato-acuminata*

maxime longitudinaliter plicata, integerrima, margine *basi reflexo*, nervo *unico ultra medium evanido*, cellulis angustissimis densissimis pallidis *veluti striatula*, cellulis alaribus *vix ullis pellucidis minutissimis* praedita; perich. caulinis simillima, longiora, basi laxius reticulata; theca, pedunculus, operculum *H. straminei;* annulus latus; perist. d. ext. lati lutei, latere hyalini subdenticulati, int. flavidi *hiantes haud limbati*, ciliis binis longis rugulosis albidis subappendiculatis.

H. Stereodon nitens Brid. II. p. 562. — *H. cuspidatum* Hdw. Sp. Musc. p. 354. et al. — H. palustre erectum trichodes, ramulis crebris, luteo et rufo-virentibus glabris. Dill. Musc. p. 303. t. 39. f. 37! haud p. 300. t. 39. f. 34, ut Bridelius citat.

Patria. In pratis uliginosis spongiosis totius Europae atque Americae septentrionalis et in Asia sept., usque in zonam alpinam et arcticam, sed rarius et parce fertile. — *Aestate.*

Ab *H. cuspidato*, saepe commutato notis cursive impressis toto coelo differt, et cum *H. rufescente* simillimo foliis uninervibus et peristomio jam discrepat.

b. *Folia binervia.*

α. Nervi deplanati.

295. H. nitidum C. Müll.; *dioicum?* caulis elongatus teres tenuis mollis, apice e foliis convolutis cuspidatus, ramis longiusculis subsimplicibus teretibus dichotome divisus, e lutescenti-viridis sericeo-nitidus; folia caulina dense appressa, *ovato-oblonga acuminata, acumine vix tertiam partem folii aequante*, concava, subconvoluta, integerrima, *nervis binis brevissimis*, cellulis elongatis angustissimis; perich. longiora subsquarrosa; theca in ped. longiusculo tortili gracili rubro suberecta cylindracea vix arcuata, interdum subcernua, basi attenuata, brunnea, annulo operculo adhaerente, operc. conico *oblique rostellato* breviusculo; perist. d. ext. lutei, int. angusti carinati. †.

Leskea nitida Hook. et Wils. Lond. Journ. of bot. 1844. p. 551. — Cum ic. in Fl. Antarct. II. p. 416. t. 154. f. 6.

Patria. Staaten-Land: Menzies 1787 fertile legit; insula Eremitae ad Cap. Horn: J. D. Hooker sterile invenit.

Ab *H. stramineo* simillimo caracteribus explicatis toto coelo recedit. Cilia peristomii interni interposita probabiliter rudimentaria auctores neglexerunt. Ab *H. extenuato* (*H. crinito* H. et W.!), cui auctores peraffine declaraverunt, ex ic. et descr. longissime diversum est.

296. H. cuspidatum L. (Sp. Pl. p. 1595.); *dioicum;* cespites elati *rigidissimi* lati *pallide* virides; caulis assurgens *rigidus* longiusculus *dense foliosus pungens*, ramis *creberrimis plus minus cuspidatis maxime pinnatus;* folia caulina laxe *erecta, late oblongo-lanceolata* planiuscula v. plus minus involuta, integerrima, *nervis binis brevibus*, cellulis *H. cordifolii*, alaribus multis laxis pellucidis ventricosis contractis; perich. late lanceolata, *longissime acuminata valde vaginantia et plicata tenuiter reticulata pallide membranacea enervia;* theca in ped. elongato rufo laevi *crasso rigido erectiuscula v. subhorizontalis turgide gibboso-cylindracea* arcuata, *late annulata*, operc. conico acuto subobliquo; perist. d. ext. longissimi latissimi lutei, dense trabeculati, latere superne distincte pellucide serrulati, int. in membrana *altissima flavida valde reticulata, subhiantes, latere inferne tenuissime limbati, superne denticulati, ciliis tribus longissimis appendiculatis* albidis.

Hypnum Stereodon cuspidatus Brid. II. p. 562. — H. palustre extremitatibus cuspidatis et pungentibus. Dill. Musc. p. 300. t. 39. f. 34.

H. heterophyllum Hüb. Musc. Germ. p. 633 e spec. authent., ab eo accepto, cum descriptione autem minus connivens omnino huc pertinet. — *H. flexile* Brid. II. p. 417; forma aquatica flaccidissima nervis obsoletissimis.

Patria. In locis palustribus per totam Europam, Americam septentrionalem et in Asia septentrionali, usque in zonas polares, vulgatissimum. — *Vere et aestate.*

Notis cursive impressis ab *H. cordifolio* longissime refugit.

297. **H. Schreberi** Willd. (Prodr. Fl. Berol. n. 955.); *dioicum;* cespites lati laxi altiusculi pallide virides; caulis elongatus erectus rigidus subcuspidatus, ramis *patentibus attenuatis curvatis compressiusculis* pallide viridibus pinnatus; folia caulina *appressa, e basi angustâ elliptica, in acumen brevissimum ligulato-obtusum crenulatum producta,* integerrima, *cymbiformi-concava, marginibus superne plus minus involuto-conniventibus basi reflexis,* nervis binis breviusculis flavidis, cellulis elongatis angustissimis densis, alaribus multis laxis *planiusculis fuscis;* perich. externa reflexa parva, interna vaginantia longe lateque lanceolato-acuminata integerrima pallidissima enervia laevia longius et laxius reticulata; theca in ped. longo rigido crasso purpureo laevi horizontalis arcuato-oblonga fusca exannulata, operc. conico acuto; perist. d. ext. longi lati lutei, *latere maxime cristati,* dense trabeculati, int. in membr. alta flaviuscula lati *hiantes,* latere superne serrulati, ciliis 2—3 longis albidis appendiculatis.

Brid. II. p. 420. — *H. compressum* Schreb. Spic. Fl. Lips. p. 96. — *H. muticum* Sw. Musc. Suec. p. 60. — *H. purum* β. Ehrh. Huds. With. — *H. parietinum* L. Fl. Suec. n. 1020. — *H. cuspidatum* β. *inerme* Weis. Crypt. Goett. p. 253. — *H. inerme* Schrank. Prim. Fl. Salisb. n. 845. — H. cupressiforme tenuius et compressum. Dill. Musc. p. 312. t. 40. f. 47.

Hypnum Curlandicum Brid. Mant. Musc. p. 160. seu *H. Schreberi* β. *Curlandicum* Brid. II. p. 421. ramis densioribus et foliis minoribus vix variat.

Patria. In locis umbrosis praesertim ericetis sylvestribus per totam Europam et Americam septentrionalem. — *Hyeme et vere.*

Notis cursive impressis ab *H. cuspidato* longe recedit et *H. puro* simillimum.

298. **H. rufescens** Dicks. (Fasc. III. Pl. Crypt. p. 9. t. 8. f. 1.); dioicum; procerum erectum plus minus dichotome ramosum *robustum* rigidum substrictum, e viridi-rufescens aureo-nitidum, late laxe cespitosum, parum compressum; folia caulina rigide erecto-patentia laxe conferta, e basi rotundato-concava late lanceolata, acumine

elongato acuto senectute canescente terminata, integerrima, plus minus carinate plicata, margine ubique fere valde revoluto, nervis deplanatis tenuibus breviusculis haud callosis laevibus, cellulis *elongatis angustissimis rectis* pallide viridibus v. fuscescentibus, basi semper fuscis, alaribus vix ullis; perichaetia *turgida*, folia caulinis minora, late ovata, acumine elongato flexuoso terminata, subdenticulata, enervia, margine erecto, cellulis ubique fuscis v. brunnescentibus plus minus conflatis laxioribus; theca in ped. elongato purpureo laevi *erecta* cylindrica, annulata, fuscidula, operc. conico *oblique acuminato v. rostrato* aurantiaco; perist. d. elongati late lanceolati subulati carinati, inferne dense trabeculati lutescentes, linea media tenuissima exarati, superne articulati pallidiores, int. aequilongi angusti carinati subulati, *subrugulosi*, imperforati albidi, in membrana brevi positi, ciliis 2—3 *rudimentariis* interjectis.

Isothecium rufescens Hüb. Musc. Germ. p. 600. — *Leskea rufescens* Schw. Suppl. I. II. p. 178. t. 86. — Brid. II. p. 284. — Hypnum caulibus vix ramosis, foliis subulatis aristatis, capsulis gracilibus. Hall. Hist. St. Helv. n. 1784.

Patria. In alpibus totius Europae, ubi loca frigida irrorata habitat et *aestate* fructificat.

Ab *H. aureo* proximo vestigiis illustratis longe recedit.

299. H. chryseon Schw. (Schult. Reise auf den Glockner II. p. 364.); dioicum; procerum *gracile subsimplex* plerumque lutescens; folia caulina *appressa, multo breviora, latius lanceolata breviter et reflexiuscule vel oblique acuminata* stricta, cellulis *magis serpentino-flexuosis, igitur striatulis* pallidis, alaribus ad basis infimae concavae marginem involutum fuscum vix ullis; perichaetia *angustissima*, foliis in acumen tenuissimum filiforme productis, angustioribus; theca *suberecta minor*, operculo *conico obtuso;* perist. *brevius* et angustius, dentes ext. *rugulosi*, int. *laeves breviores*, ciliis internis interpositis *tenuissimis longiusculis tenerrimis* binis.

Isothecium chryseum Spruce in Musc. Pyr. No. 90. Ann. and Mag. of Nat. Hist. 1849. — *Isothecium rufescens β. chryseon* Hüb. Musc. Germ. p. 601. — *Leskea rufescens β. chrysea* Brid. II. p. 286. — *Leskea chrysea* Hoppe et Hsch.; Brid. l. c.

Patria. In alpe Pasterze Carinthiae superioris in rupibus nivalibus: Hornschuch; in Austria inferiore fide Schwägricheni; in Pyrenaeis occid. et central. ad rupes humidas, in fissuris: Spruce, e zona subalpina usque ad medialpinam ascendit; Rocky Mountains, ad rupes humidas: Drummond No. 221.

Notis laudatis ab *H. rufescente* distinctum.

β. Nervi callosi.

300. **H. aureum** Lam. (Encycl. Meth. Bot. III. p. 172.); dioicum; robustum fastigiatim ramosum, dicranoideum luteo-fuscum nitidum, ramis apice cuspidatis ascendentibus breviusculis erecto-patentibus; folia caulina erecto imbricata, humore maxime patentia, elongata, subsecunda, longissime late lanceolata acuminata, parum falcata, pluries distincte longitudinaliter plicata, margine erecto vel parum reflexo planiusculo, ubique denticulato, nervis longissimis parallelis tenuibus flavidulis distincte conspicuis, dorso calloso-prominentibus, superne dentatis, apice spinae forma abruptis, cellulis angustissimis incrassatis serpentinis elongatis fuscidulis, basi infima fuscis, alaribus paucis brunneis veluti obsoletis; perichaetia turgida, foliis late vaginantibus longissime acuminatis flexuosis, basi laxissime reticulatis aureis v. brunnescentibus, vix plicatis enervibus; theca in ped. elongato purpureo erecta breviter cylindracea fusca; perist. d. ext. linea media diaphana latiuscula exarati, late lanceolati subulati, interni in membrana lutescente ciliaeformes.

Dicranum Novae Hollandiae Hsch. in Sieber. Musc. Exs. No. 7; in patria certe false indicata. — *Leskea congesta* Brid. II. p. 323. excl. Syn. Swartz. — *L. striata* Schw. Suppl. I. II. p. 180. t. 86. — Brid. II. p. 334. — *H. phryxophyllum* Arn. — *Mnium aureum* P. B. Prodr. p. 74.

Patria. Insulae Antillarum, ubi in monte sulphurifero insulae Guadeloupe primus legit Richard.

Ex habitu *Dicrano scoparii* haud dissimile.

B. *Cellulae alares vesiculaeformes.*

a. *Folia acuminata.*

301. **H. pungens** Hdw. (Sp. Musc. p. 237. t. 60.); *hermaphroditum;* cespites laxe cohaerentes; repens, ramis erectis longiusculis *patentifoliis*, apice subcuspidatis, flexuosis crassiusculis *stramineo-viridibus subsecundis nitidulis* irregulariter breviuscule subpinnatis; folia caulina *subhorizontalia laxe imbricata, e basi coarctata brevissima reflexa, cellulis alaribus introrsum impressis subventricosis maximis hyalinis v. flavidis praedita subauriculatâ dilatate lanceolato-acuminata, acutiuscula, margine plus minus involutaceo integerrimo, summo apice involuto parum denticulato v. integra*, nervis obsoletis, cellulis pallidis basi flavidis; perich. paucissima late vaginantia breviter acuminata, sub apice solo involutacea, superne denticulata, basi laxius reticulata flavida; thecae in pedunculis *inter cespitem occultis brevibus*, tenuibus purpureis *superne subpapillosis* erectae *minute urceolato-ovales*, badiae, exannulatae, *ore truncatulo* aequali v. constricto, operc. conico longe aciculari flexuoso aurantiaco; perist. d. ext. breves angusti, linea media *latiuscule diaphana valde exarati* subrufi, int. aequilongi angustissimi vix perforati flaviusculi, ciliis *singulis rudimentariis v. nullis* interpositis.

Leskea pungens Sw. Fl. Ind. Occ. III. p. 1806. — Brid. II. p. 291. — *Leskea patens* Hsch. Fl. Bras. I. p. 72! forma minor, haud rare occurrens.

Patria. Ad radices arborum in sylvis humidis montosis Jamaicae primus legit Swartz; Surinam, ad truncos fruticum planitierum arenosarum prope Joden-Savanna, rarius: Kegel, Nov. 1845; insula Antillarum Trinidad, monte Tocuche: Crüger mensibus Januarii, Martii, Jul. et Dec. 1847, in societate *Syrrhopodontis lycopodioidis*, *Mniadelphi aurati* et al. muscorum; Venezuela, prov. Carabobo, Cumbre de Valence, alt. 5000′, 1846 Ja-

nuario: Funck et Schlim in Coll. Linden. No. 619; Brasilia, in Minis Generalibus: de Martius.

Flores in eodem caule numerosi cparaphysati.

302. **H. hermaphroditum** C. Müll.; *hermaphroditum; H. pungenti* simile, sed rami *apice erecto cuspidato brevi, densifolii;* folia caulina *brevia, patentia quidem, sed tamen dense approximata et igitur caulem subjulaceum efficientia, latissime ovato-lanceolata convoluta, acumine brevissimo* subcrenulato, cellulis et foliis perichaetialibus *H. pungentis;* theca in ped. *longiusculo superne lamelloso-verrucoso* purpureo erecta v. vix inclinata parvula *elliptica atro-badia*, exannulata, operculo *concolori* longe flexuose aciculari; perist. *H. pungentis.*

Leskea straminea Hsch. et Reinw. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 718. ex parte!

Patria. In monte Klabat in regno Menado insulae Celebes: Reinwardt.

303. **H. luxurians** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 307.); *dioicum;* caulis repens subpinnatim ramosus, ramis brevibus ascendentibus compressis pallide viridibus; folia caulina erecto patentia in series indistinctas rectas disposita, late oblonga concava, *in acumen basi constrictum latiusculum longiusculum serrulatum producta*, dorso tenerrime papillosa, margine recto, *sub acumen interdum parum convexo, ubique fere denticulato,* nervis obsoletis, cellulis *longiusculis subconflatis* pallidissimis, basi flavidis, alaribus magnis 3—5 *pellucidis;* perich. e basi breviuscula late vaginante longius acuminata valde serrata, basi laxius reticulata; theca horizontalis v. nutans, oblongo-cylindrica, operc. convexo-conico subulato.

Patria. Java, Sumatra.

Ab *H. Bruchii* proximo et simillimo ob vestigia explicata differt.

304. **H. Bruchii** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 306.); *dioicum? procumbens* ramosum, ramis *dense congestis* erectis subsimplicibus curvatis *compressiusculis*

arum cuspidatis rigidis pallide viridibus; folia *in series ex rectas disposita*, lateralia patentia, superiora erecto-ppressa, *late oblonga ligulato-lanceolata*, tenerrime pa-llata, cymbiformi-concava, dorso margine erecto, *sub ice utrinque convexo, apice summo planiusculo cre-dato*, nervis obsoletis, cellulis grossiuscule ellipticis pal-lis, basi aureis, alaribus magnis aureis c. quinis lon-usculis; perich. erecta oblonga *cuspidato-acuminata, umine longo serrato;* theca *horizontalis* oblongo-cylin-ica fovcolata, operc. conico-rostrato curvato.

Patria. Sumatra: Korthals.

Fructum non vidimus. — Notis illustratis habitu oprio et *H. hermaphrodito* haud dissimile.

305. **H. strepsiphyllum** Mont. (Lond. Journ. of bot. 844. III. p. 632.); *dioicum; H. pungenti* simillimum, sed acilius et *fuscidulo-viride rigidissimum;* folia caulina *axime patentia laxius imbricata*, basi latiora semel vel s contorta; perich. robustiora; theca in ped. *longissimo ice curvato longior cylindraceo-oblonga, basi latiore, b ore angustiore* parum coarctata badia, operc. conico-presso oblique rostrato; perist. d. ext. latiores longio-s, *intus latere valde cristati, int. lati*, ciliis *binis te-rrimis longiusculis.*

Hypnum strepsiphyllum Mont. Ann. d. sc. nat. 1845. 4. p. 91.

Patria. Java, in cortice arborum prov. Buitenzorg: b. Miquel.

Flores in eodem caule paucissimi.

306. **H. procerum** C. Müll.; *maxime elongatum cre-um robustissimum, ramis longis simplicibus flexuosis beuspidatis remotis subpinnatum*, pallide stramineum; lia caulina laxe imbricata valde patula v. patentia, *ma-ima, latissime ovata, breviter acuminata*, margine ere-o, apice parum involutacco, nervis obsoletis, cellulis ossis longiusculis, parietibus inferne et superne furca-s, pallidis basi aureis, alaribus maximis septenis aureis ntricosis.

Hypnum tanytrichum Dub. (haud Montagne!) in Moritzi Syst. Verz. d. Zolling. Pfl. p. 130!

Patria. Java: Zollinger No. 1737 ex parte.

Hypno cuspidato v. *cordifolio* simile. Sub No. 1737 coll. Zolling. plantae duae diversae (*H. procerum* et *tanytrichum*) editae sunt.

307. **H. hyalinum** Reinw. (in Schw. Suppl. III. I. 2. t. 227.); *dioicum! H. pungenti* simillimum, procerum et ramis longioribus; folia caulina *multo latiora robustiora obtusiuscula;* theca in ped. *longissimo* flexuoso crassiore *major;* perist. d. int. *late* lanceolati, ciliis *subaequilongis* singulis.

Patria. Java, monte Gédé: Reinwardt, dein Junghuhn.

308. **H. Gedeanum** C. Müll.; *dioicum! H. hermaphrodito* simillimum, sed longius ramosius, *foliis irregulariter imbricatis horridum;* folia caulina *magis erecto-patentia, longiora, acumine longiusculo terminata;* pedunculus *H. hermaphroditi,* theca *longior oblongo-cylindracea, sicca horizontalis.*

Leskea straminea Reinw. et Hsch. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 717. t. 40; ex parte.

Patria. Java, monte Gédé: Reinwardt; ex Hb. Gottscheano habemus.

309. **H. turgidum** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 309.); *dioicum; longiusculum; foliis densissime appressis veluti funiforme turgescens submolle lutescens* nitidum, inferne nigricans, ramis fastigiatis inaequalibus *parum uncinate et brevissime* cuspidatis; folia caulina madefacta patula erecto-conferta, *late* ovata, acumine breviusculo acuto terminata, integerrima, margine plus minus involutacea, cellulis pallidissimis *subconflatis,* alaribus *quaternis v. quinis* aureis auriculatis, *haud ventricosis* magnis, flavidis; perich. erecta late vaginantia et subito fere longius acuminata, superne eroso dentata,

basi laxe flavide reticulata; theca in ped. arcuato nutans ovato-oblonga, operc. conico-rostrato, rostro subulato curvato.

Patria. Sederatoe insulae Javae, Sumatra, Borneo: Hb. Lugd. Batav.

Ab *H. procero* statura multo humiliore et caracteribus celebratis differt. Fructum non vidimus.

b. *Folia pilifera.*

310. H. tanytrichum Mont. (Ann. d. sc. nat. 1845. 4. p. 88.); *dioicum;* caulis *longissimus* semipedalis et longior, prostratus, foliis *subjulaceo-imbricatis teretiusculus gracilis,* ramis longis *iterum ramulosis, ramulis flexuosis curvatis gracilibus fuscidulo-stramineis nitidis v. robustioribus cuspidatis;* folia caulina erecto-conferta, *e basi angustatâ obovato-rotundata* concava, *apice e sinistra ad dextram subtorte involuto et in pilum tenue flexuosum longum producto,* subintegerrima, margine erecto, nervis obsoletis, cellulis elongatis pallidis basi flavidis, alaribus inferioribus 3—4 *parvulis, sed amplis turgide prominentibus* amoene flavidis, superioribus *nonnullis paucis longis pellucidis;* perich. longe et late vaginantia acuminata v. pilifera denticulata, basi longe laxe et badio-areolata; theca in ped. *longissimo* purpureo valido laevi *in sporangium sensim incrassato horizontalis longiuscule anguste cylindracea subclavata, medio constricta;* perist. d. ext. flavidi, medio leviter exarati, lutei, int. aequilongi pertusi flavidi, ciliis singulis pyramidatis.

Patria. Java: Zollinger No. 1737.

E distinctissimis. Theca exannulata videtur; operculum ignotum.

311. H. extenuatum Brid. (II. p. 484.); *dioicum?* caulis prostratus appressus flexuosus crassiusculus densifolius, *in cuspidem subflagelliformem tenuiorem productus, lutescens;* rami brevissimi patentifolii, in flagella tenuissime filiformia brevia teretia glauca multa aggregata strictiuscula fragilia dissoluti; folia caulina erecto-paten-

tia laxe conferta, *e basi late truncata brevissime reflexâ late ovato-lanceolata, in acumen piliforme tenue subrectum producta, membranacea, planiuscula, subintegerrima*, margine erecto, nervis obsoletis, cellulis *angustissime linearibus conflatis pallidissimis, basi flavidis*, alaribus *superioribus paucissimis pellucidis subincrassatis minutis, inferioribus magnis vesiculaeformibus ventricose impressis hyalinis v. flavescentibus;* folia ramorum flagelliformium minute lanceolata concava superne denticulata; theca in ped. laevi subovato cernuo, conico-operculata.

H. crinitum Hook. et Wils. Lond. Journ. of bot. 1844. p. 555! forma foliis apice magis obtusis et inde piliferis. — *H. glaucescens* Hsch. in Musc. Sieber.!

Patria. Nova Hollandia: Labillardiere primus legit, dein Sieber. In terra Van Diemen fertile legit J. D. Hooker.

Ab *H. denso* proximo caracteribus explicatis facile distinguitur. Fructum nondum vidimus.

Incertae sedis.

312. H. Esmeraldicum C. Müll.; caulis subimplexus procumbens tenellus, ramis abbreviatis bilinearibus erectis subcomplanatis; folia caulina laxe imbricata patentia, flavide viridia, sicca nitentia, ovalia apiculata integerrima obsoletinervia; perich. stricta erecta longius acuminata appressa substriata; theca in ped. brevi sed pro ramis abbreviatis elongato biunciali erecta v. inaequalis erectiuscula subapophysata, operc. convexo longius rostrato; perist. d. int. pertusi, ciliis singulis brevibus interpositis. †.

Hypnum microcladon Tayl. (non Dz. et Molkb.) Lond. Journ. of bot. 1846. p. 64.

Patria. Ad truncos arborum in sylvis' prope Esmeraldos Andium Quitensium: Prof. W. Jameson 1827 in Hb. Grevill.

Ex animadv. Wilsoni (l. c. p. 453.) *H. hyalino* affine.

Subsectio VI. **Plumularia.** *Plantae tenellae, plumulose foliosae*; rami assurgentes teneri; folia angusta elongate areolata laevia.

A. *Cellulae alares quadratae.*

a. *Pedunculus laevis.*

α. Theca erecta.

313. **H. longirostratum** C. Müll.; *monoicum*; caulis repens, ramis perpusillis parce divisis erectis pallide luescentibus teneris homomallophyllis; folia caulina secunda, e basi angustiore brevissima, cellulis alaribus utrinque binis majusculis flavidis praeditâ *anguste ovato-acuminata strictiuscula* v. curvula, cymbiformi-cava, enervia, integerrima, cellulis elongatis angustis pallidis; perich. *pauca minuta late obovata vaginantia serrulata, acumine brevi angusto denticulato terminata*, laxius reticulata subcolorata; theca in ped. breviusculo rubro laevi *erecta minute ovalis*; operc. *cupulato longe suboblique aciculari*; perist. *H. tenelli.*

Leskea longirostris Brid. II. p. 311.

Patria. Insula Porto Ricco, ad arborum corticem: Bertero.

Caracteribus laudatis facile cognoscendum. *H. tenello* simile.

314. **H. microtheca** C. Müll.; (Linn. XXI. p. 199.); *monoicum; tenellum pusillum*; cespites *latissimi subcompacte conferti, deplanati, pallide virides nitiduli, mollissimi*; caulis repens, *intricato-ramosus*, ramis brevibus flexuosis *gracillimis*; folia caulina *plumose imbricata*, erecto-patentia, saepius subsecunda, *e basi angustata brevissimâ angustissime oblongo-acuminata, stricta, cymbiformi-concava*, subintegerrima, margine ubique erecto, cellulis elongatis pellucidis, alaribus *quadratis amoene pellucidis paucis mollibus laxiusculis*, nervis binis obsoletis brevissimis; perich. perpauca patula minora, teneriora, caulinis similia, sed laxius reticulata enervia; theca in ped. *tenerrimo flavido laevi breviusculo erecta, angustissime cylindracea, amoene aurantiaca, ore brunnea*, te-

nella, operc. conico subulato subobliquo; perist. parvi d. rufescentes angustissimi, int. angustiores flavissimi solidi articulati, ciliis singulis tenerrimis brevibus pallidioribus interjectis.

Patria. Surinam: Kegel ad truncos arborum prope Paramáribo, m. Febr. fructibus maturis; in insula Trinidad ad La Ventille et Savanna copiose legit Crüger.

Species ex caracteribus explicatis distinctissima atque pulcherrima, nulla alia confundenda, e theca angustissime cylindrica erecta tenella et statura gracillima primo visu cognoscenda, *Neckerae* (*Pterogonio*) *pulchellae* habitu quam maxime similis.

315. **H. Sendtnerianum** C. Müll.; *monoicum;* caulis repens, ramis filiformibus decumbentibus vel assurgentibus tenerioribus flexuosis apice parum curvatis homomallophyllis pallescenti-viridibus sericeis; folia caulina *plumulose* imbricata, secunda, anguste ovato-acuminata parum falcata, margine *ubique erecto subintegerrimo*, nervis binis obsoletis brevissimis, cellulis angustissime linearibus densis virescentibus, alaribus *vix ullis;* perich. perpauca dense appressa, e basi *breviter* vaginante ovata *tenera* pallidissima laxe reticulata *superne denticulata enervi* breviter *et tenerrime acuminata integerrima, minutissima;* theca in ped. rubro elongato laevi tenero erecta v. suberecta minuta *vix cernua ovalis* pallida, dein fusca, annulata, operc. *conico brevissimo obliquo;* perist. d. ext. angusti pallide lutei, int. *albidi* pertusi *laeves*, ciliis *singulis fugacissimis* brevibus.

Leskea Sendtneriana Schimp. in litt. ad Sendtner! — *L. laeta* Schimp. in schedis! — *Hypnum pulchellum* Funk in schedis! et Drumm. Musc. Amer. No. 167!

Patria. In Sudetis „an den Moraquellen im Mährischen Gesenke" 1839 legit Sendtner, dein in alpibus Julicis, in alpibus Bavaricis Algoviae ad Linkerskopf elev. 7500 pedum et ad locum „kleiner Rappenkopf (?)" alt. 6997 pedum, denique ad Karwendl ad locum „Kirchle" dictum elev. 6800′ mensibus Julii, Augusti et Septembris;

alpibus Carinthiae pr. Heiligenblut: Funk; in rupibus flumen quoddam inter montes Rocky Mountains Americae septentrionalis: Drummond.

Ab *H. pallescente* proximo et simili caracteribus illustratis facile distinguitur. Ab *H. pulchello* caule haud isticho jam primo aspectu differt.

316. H. irroratum C. Müll.; dioicum; laxe cespitosum *subhumile gracillimum, sterile subsimplex myosuroideum, attenuatum, fertile ramis brevibus remotis patentibus paucis superne pinnatum*, viridissimum sordidum itidulum, dein rufescens; folia caulina imbricata, sicca arum patentia, *angustissime lanceolata, acumine elongato enuissimo acuto substricto terminata*, integerrima, *parum plicata, margine erecto v. paullo revoluto*, nervis revissimis obsoletis, cellulis elongatis angustissimis pallescenti-viridibus *strictis*, basi parum flavidulis; perich. caulinis similia, longissime acuminata; theca in ped. longiusculo flexuoso purpureo erecta, cylindraceo-oblonga brevis purpurascens, perist. *H. chrysei.*

Leskea irrorata Sendtn. in litt. — *L. chrysea* Sendtn. in litt. — *L. polyantha β. sericeola* Brid. II. p. 313!

Patria. In alpibus Bavaricis Algoviae, ad Flachskahr in rup. calcareis, alt. 6400′, in „Seealpe am Eibsee im bayerischen Oberlande", in Sudetis „im Riesengrunde" et „am Peterstein im Mährischen Gesenke": Sendtner; in monte Jura legit primus omnium Roger; in valle „Martellthal" Tirolis meridionalis: Funk; in Flora Monacensi, ubi in rupium fissuris irroratis societate *Leptotrichi flexicaulis, Hypni rufescentis*, locis iisdem fructificantis, et *Barbulae paludosae* haud rarum, sed rarissime fertile legit Gattinger. — *Vere.*

Ab *H. chryseo* vestigiis cursive impressis longe refugit.

317. H. Schlagintweitii Sendtn. (in schedulis); *dioicum; H. irrorato* simillimum, sed *mollissimum*, ramis subsimplicibus perfecte myosuroideis *compressis* sordide viridibus *laxifoliis* flexuosis; folia caulina *laxe imbricata*

patentia, nervis *distinctioribus*; theca in ped. valde tortili *erectiuscula cernuo-cylindracea pallide fusca* parvula, operc. turgide conico rectiusculo; perist. d. ext. latiuscule lanceolati, dense trabeculati, plani, pallide lutei latere paulisper pallidiores, int. aequilongi anguste subulati albidi carinati integri laeves, ciliis binis *aequilongis* tenuissimis.

Patria. Carinthia, „kalte Quellen beim Pasterzensee", alt. c. 8100', ubi die 30. Augusti 1848 leg. fratres Schlagintweit.

β. Theca inclinata.

318. **H. tenellum** Dicks. (Crypt. Fasc. IV. t. 11. f. 12.); *monoicum*; cespites depressi latissimi mollissimi tenelli intricati velutino-virides; caulis repens, ramis assurgentibus *teneris flexuosis apice subcurvatis* brevibus divisis; folia caulina parum secunda plumulose imbricata tenera, anguste lanceolato-acuminata stricta subintegerrima, carinata, margine erecto, nervo tenui viridi ad medium evanido, cellulis angustissime linearibus virescentibus densis, alaribus vix ullis; perich. *caulinis simillima*, vaginantia *longius acuminata*; theca in ped. brevi *laevi* purpureo inclinata parva turgide ovalis, ore subcoarctata, latiuscule annulata, operc. conico, oblique rostrato; perist. brevis angusti d. ext. lutei v. rufescentes, intus parum cristati, interni flavi *laeves* parum perforati, ciliis aequilongis albidis *singulis laevibus flaccidis* teneris.

H. Stereodon Algirianus Brid. II. p. 592. — *H. Algirianum* Desf. Hb.; nomen antiquissimum quidem, sed ante illud Dicksonianum non editum ideoque delendum! — *H. exiguum* Blandow in Fasc. Crypt. II. No. 98! — *Pterigynandrum Algirianum* P. B. Prodr. p. 86.

Patria. Ad rupes, saxa, muros et truncos arborum antiquarum per totam Europam temperatam, praesertim mediterraneam. In Algiriae monte Atlante Africae primus legit Desfontaines 1795; in monte Sinaï Arabiae: Seetzen 1816. — *E mensi Septembris usque ad Aprilem.*

Ab *H. litoreo* proximo notis cursive impressis differt.

319. **H. venustum** De Not. (Syllab. Musc. p. 30.); *moicum;* dense implexo-cespitosum; caulis repens vix liculiger vage ramosus, vix nisi apice subpinnatus, te- llus pusillus, ramis remotiusculis fasciculatisve brevi- s simplicibus teretiusculis, *sordide lutescentibus;* folia ulina *dense plumulose imbricata, erecto-appressa, an- ste ovato-acuminata,* acumine *semel torto longiusculo xuoso,* concava, margine erecto, *ubique distincte den- ulato,* nervo tenui dimidiato carinato, cellulis elongatis *gustissimis sordide lutescentibus,* alaribus minutissime adratis diaphanis, ad marginem parum impressum dis- sitis; perich. caulinis similia, magis vaginantia, latiora, ervia; theca in ped. laevi brevi cernua ovata, operc. *nico subattenuato minute mucronulato.*

Patria. In sylvis fagineis vallis Vegezzo provinciae varіensis Italiae superioris, ad terram: De Notaris.

H. velutino foliis appressis pedunculoque laevi jam enum; ab *H. tenello* proximo caracteribus explicatis rte recedit. Fructus nobis haud visus.

320. **H. tenerum** Sw. (Fl. Ind. Occ. III. p. 1817.); *onoicum;* cespites lati deplanati *albide lutescentes seri- i;* caulis repens, ramis assurgentibus *tenerrimis* filifor- ibus flexuosis curvatis; folia caulina plumulose imbricata cunda, tenera, anguste ovato-acuminata, integerrima, ricta, subcymbiformi-concava, margine erecto, nervis nis brevissimis obsoletissimis, cellulis angustis linear- is pellucidis pallidis, alaribus vix ullis; perich. vaginan- a longe acuminata, basi laxius reticulata; theca in ped. *ongato* tenerrimo laevi rutilante stricto horizontalis *mi- utissime ovalis,* operculo *conico recto brevi;* perist. mi- uti d. ext. carnosuli, intus valde cristati, interni solidi gustissimi flavi, ciliis singulis teneris albis interjectis.

Isothecium tenerum Brid. II. p. 385.

Patria. In Antillis, ubi ad truncos arborum Jamai- e montosae legit Swartz, in Porto Ricco: Bertero.

Notis cursive impressis facile discernibile, habitu *H. curvato* haud dissimile, sed albidum.

Schrank. Baiers. Fl. III. p. 461. — Hypnum ventricosum, capsulis ovatis cernuis. Dill. Musc. p. 326. t. 42. f. 61.

β. intricatum; folia subhomomalla, apice subobliq theca brevis turgide subglobose gibboso-ovalis. Brid. p. 459. — *H. intricatum* Schreb. Spic. Fl. Lips. p. 99. — Musc. Fr. IV. p. 73. t. 28. — Brid. II. p. 461.

γ. sericeum; amoene lutescenti-virens, sericeum, bustius; folia caulina longiora pellucidiora; perich. lon crinita, intima ante acumen valde emarginato-erosa; major. Brid. II. p. 459. — *H. sericeum* Fk. Moostasch. tab. 44.

δ. microcarpum; caulis tenuior; pedunculus scaber; theca parva, parum inclinata et minus gib *Leskea Fendleri* Sulliv. in Mem. of the Americ. acad. of Sc. IV. 1849. p. 169. t. 11 e spec. anct. procul dubio huc pert

Patria. Per totam Europam, in sylvis ad umbrosam vulgatissimum. In Africa septentrionali Desfontaines. Var. *β.* locis iisdem. Var. *γ.* ad montis Rathhausberg alpium Salisburgiae: Funk, in renaeis in Sierra Nevada prope Guéjar: W. P. Var. *δ.* New Mexico, Santa Fé in Americ. sept.: Fe ler. — *Omni anni tempore.*

Ab *H. litoreo* proximo caracteribus cursive impr facile distinguitur; ab *H. tenello* pedunculo scaber recedit.

325. H. Teesdalii Sm. (Fl. Brit. III. p. 1291 Bot. t. 202.); *monoicum;* cespites vagantes *de nerrimi viridissimi;* caulis *vage ramosus*, *intric* mis brevibus subcompressis eleganter plumose folios nerrimis; folia caulina *remotiuscule* imbricata, angus me *lanceolata* brevia, strictiuscula, concava, margine cto superne subdenticulato, nervo viridi dimidiato subexcurrente, cellulis angustis densis viridibus, alar vix ullis; perich. *caulinis multo latiora* vaginantia tenerrima ovato-acuminata brevia, laxe reticulata, *gerrima;* theca in ped. rubro brevi muriculato *hori lis*, minute ovalis, fusca, anguste annulata, operc. subulato obliquo luteo; perist. d. ext. angusti rufesc

int. flavidi subrugulosi vix hiantes, ciliis binis albidis subrugulosis in unum conflatis.

Brid. II. p. 416. — *H. curvisetum* Brid. Sp. Musc. I. p. 111! — *H. laxo-pinnatum* Brid. II. p. 405! — *H. Schleicheri β. curvisetum* Brid. II. p. 404! — *H. Schleicheri γ. obscurum* Brid. II. p. 405! — *H. obscurum* Brid. Mant. Musc. p. 158. — *H. rutabulum ι. tenerrimum* Brid. II. p. 488 vel *H. rutabuloides* Brid. l. c.

H. Teneriffae Mont. in Hist. des Iles Canar. Crypt. p. 3. t. 3. f. 1 omnino huc pertinet!

Patria. In Britanniae ripis nemorosis rivulorum, prope Mallock Scotiae Teesdale detexit, prope Belfast: Templeton; prope Avenionem Galliae: Requien, ad lapides udas in Delphinatu: Dejean; ad rivulorum exsiccat. lapides in Pyrenaeis centralibus locis Elysée Cottin, Labassère etc., et in Pyr. occid. circa Gélos: Spruce; in Italia, ad Romam in monte Viminali et Esquiliis ad murorum humidorum basin: Bridel. Ad terram in stillicidiis sylvae Agua Garcia insulae Teneriffae: Webb et Berthelot.

Notis cursive impressis ab *H. litoreo* proximo differt.

326. **H. Laureri** Funk (in Brid. II. p. 595 sub Stereodonte); caulis repens *H. tenelli*, sed folia viridissima e basi *ovato-lanceolata latiore longe acuminata, acumine subrecurvo*, margine *inferne revoluto, apice distincte denticulato*, nervo *subvalido in cuspidem excurrente* viridissimo, cellulis viridissimis, alaribus *subventricosis pallidis, intus granulosis, minute quadratis, multis;* perich. multo latiora vaginantia, longissime cuspidata *reflexa, basi laxe reticulata,* obsoletinervia; theca in ped. ubique *scabro* inclinata ovalis, operc. *convexo mucronato;* perist. d. interni *valde hiantes*, ciliis *binis* aequilongis pallidis interpositis teneris *rugulosis strictis.*

Patria. In Carniolia superiore prope Heiligenblut in saxis; Laurer, Funk.

Ab *H. litoreo* foliis longissime cuspidatis dentatis, perich. reflexis obsoletinervibus, areolatione foliorum aliena et perist. interno valde hiante certe differt.

327. **H. petrophilum** Weinm. (Bull. Soc. imp. d. Moscou 1845. p. 475.); caulis repens vage ramosus, ramis simplicibus erectiusculis; folia laxe imbricata erecta lanceolata longe cuspidata *integerrima* solidinervia; perich. exteriora lanceolata acuta, interiora crinita subrevoluta; theca in ped. muriculato *oblongo-subcylindracea* incurva, operc. conico. †.

Auctor Funk. Moostaschb. p. 62. t. 46. No. 46. huc citavit.

Patria. In imperio Rossico, in graniticis prope Gatschinam m. Augusti: Weinmann.

Ad *Hypna velutina* auctor duxit; ab *H. Laureri* notis laudatis sat distinctum videtur.

328. **H. fimbriatum** C. Müll.; *dioicum?* caulis repens pinnatim ramosus, ramis approximatis intricatis brevissimis attenuatis *teneris* dilute viridibus; folia caulina erecto-patula, *minuta, anguste oblonga, acumine longiusculo tenui subacuto pluries torto terminata, ramulina obtusiuscula, omnia profunde concava, pluries leviter plicata, pallidissima, integerrima,* nervis binis pallidissimis obsoletissimis brevissimis, cellulis angustissime linearibus conflatis, alaribus vix ullis; perich. vaginanti-lanceolata longe acuminata flexuosa, *ad acumen pulchre ciliata, plicata,* enervia; theca in ped. *superne scabro* erecto-incurva, oblongo-cylindrica, operc. convexo rostrato subulato obliquo, calyptra *pilosa.*

Leskea fimbriata Dz. et Molkb. Ann. d. sc. nat. 1844. II. p. 310.

Patria. Nova Guinea, Amboina.

Fructum non vidimus. E caracteribus explicatis species distinctissima.

B. *Cellulae alares vesiculaeformes.*

a. *Pedunculus laevis.*

329. **H. subulatum** Hmp. (Ic. Musc. t. 9.); *dioicum;* laxe cespitosum repens, ramis erectis *tenerrimis remotis intertextis laxifoliis* sordide luteo-viridibus brevibus et longiusculis subsimplicibus flexuosis vage ramosum tenel-

lum pulchellum; folia caulina *remota patentissima et erecto-patentia, pro exiguitate rami longiuscula, angustissime lanceolato-subulata strictissima, ob marginem valde involutum convolutaceo-concava*, subintegerrima obsoletinervia, cellulis pallidis angustissime linearibus brevibus basi subflavidis, alaribus *majusculis hyalinis tenerrime membranaceis basin folii breviter reflexam dilatantibus;* perich. strictissima, late vaginantia, acuminata, ubique denticulata, basi laxe et flavide reticulata; theca in ped. laevi purpureo *tenerrimo brevi assurgens minutissima vix conspicua angustissime obovata brevicolla*, sicca urceolata ore constricta, badia leptodermis exannulata, operc. cupulato-conico longe oblique aciculari aurantiaco; perist. minuti d. ext. flavidi, int. subaequilongi, ciliis singulis rudimentariis.

Dicranum diminutum Javense Brid. I. p. 814 huc forsan vel ad affinem speciem pertinet.

Patria. Manila: Meyen.

Pl. mascula floribus pluribus turgescentibus. *H. intorto* habitu simile, sed vestigiis laudatis toto coelo diversum et *H. pungentis* vel *strepsiphylli* veluti diminutiva forma.

330. **H. Beyrichii** Hsch. (Fl. Bras. I. p. 81. t. 4. f. 1.); *monoicum;* rami *pusilli graciles compressi breves* curvati v. recti e viridi lutescentes splendentes; folia caulina erecto-patula, parum secunda, e basi angustâ angustius lanceolata longe acuminata strictiuscula integerrima cava, pallidissima, margine vix reflexo, nervis brevibus distinctioribus, areolatione *H. cespitosi;* perich. *angustissime lanceolata longissime filiformi-acuminata* subdenticulata, subnervosa, basi infima laxius et flavide reticulata; theca in ped. *brevi tenuissimo* purpurascente laevi *erecta, curvatura pedunculi leni tantum subnutans minutissime obovata tenera* exannulata fuscidula, sicca ore parum coarctata, operc. cupulato aurantiaco longe oblique aciculari; perist. minutum.

Patria. Brasilia, ad truncos arborum putridos prope Rio Janeiro, m. Octobris: Beyrich.

Ab *H. cespitoso* exiguitate, teneritate et caracteribus laudatis longe refugit.

331. H. brachypelma C. Müll.; cespitosum *fulvum molle humile* erectum; caulis repens, ramis *tenuibus* assurgentibus *apice curvatis;* folia caulina laxiuscule imbricata, secunda, e basi angustiore anguste lanceolata, *longiuscule tenuiter flexuose acuminata*, concava, *subdenticulata*, margine *erecto*, nervis binis brevissimis flavidis obsoletis, cellulis ubique angustissime linearibus elongatis pallescentibus, alaribus turgidis majusculis vesiculaeformibus pellucidis et flavidis; perich. vaginantia, longius acuminata subdenticulata; theca in ped. *perbrevi* rubro laevi inclinata *minutissime oblonga.*

H. microcarpum Hook. in Wallich. Catal. No. 7657. — Ic. Pl. Rar. t. 23. f. 4. — Lond. Journ. of bot. 1840. p. 18.

Patria. Nepal: Wallich.

Notis cursive impressis facile discernibile.

332. H. Boschii Dz. et Molkb. (Ann. sc. nat. 1844. 4. p. 306.); *monoicum;* caulis repens *intricato-cespitosus* vage ramosus, ramis assurgentibus, superne lutescentibus inferne fuscis subnitidis *tenuibus, apice vix vel parum aduncis* subfasciculatis; folia caulina laxiuscule conferta, subsecunda, *madore patula*, anguste oblongo-acuminata subintegerrima concava, margine parum *inferne revoluto*, nervis binis obsoletis brevissimis, cellulis elongate anguste linearibus subpellucidis basi luteis, alaribus utrinque nervi 3—4 turgide vesiculaeformibus aureis; perich. *longiuscule acuminata subdenticulata*, inferne vaginantia et laxius reticulata; theca in ped. breviusculo rubro laevi nutans minute oblonga brevicolla, ore coarctata, exannulata, operc. convexo subulato-rostrato; perist. minuti d. ext. angusti lutei, int. flavidi solidi, ciliis singulis brevioribus interjectis.

Patria. Borneo: Korthals.

Ab *H. Hornschuchii* affini notis cursive impressis differt.

333. H. pusillum Hsch. (Fl. Bras. I. p. 85.); *monoicum;* caulis *exiguus tenellus* parce divisus pallide viridis; folia caulina *erecto-patentia pauca, angustissime linearilanceolata acuminata stricta cymbiformi-concava, subintegerrima,* margine *anguste revoluto,* nervis *absolute nullis,* cellulis elongatis angustis pellucidis pallidis subflexuosis, alaribus *utrinque binis majusculis flavis;* perich. angustissime lanceolato-acuminata longiuscula patula pauca; theca in ped. pro plantulae exiguitate elongato tenerrimo laevi rutilante flexuoso *horizontalis minutissime pyriformi-urceolata, ore valde contracta,* operc. *hemisphaerico longe rostrato rectiusculo;* perist. *minuti* d. ext. angustissimi breves carnosuli, intus valde cristati, int. solidi, ciliis singulis brevioribus.

Patria. Brasilia, Tijuca in vicinia Sebastianopoleos inter Jungermannias in solo turfoso: Olfers.

Vestigiis declaratis facile discernibile. *H. crassiusculo* simile.

334. H. crassiusculum Brid. (Spec. Musc. II. p. 242.); *monoicum;* caulis repens confertim subpinnatimque ramosus, pusillus tenellus, ramis *brevissimis strictissimis* lutescentibus; folia caulina patentissima laxiuscula, longiuscule angustissime lanceolato-acuminata, *integerrima* caviuscula, *vix flavide binervia,* elongate angustissime areolata *lutescentia, basi flavida,* cellulis *alaribus vesiculaeformibus flavidis* oblongis; perich. e basi vaginante longe tenuiter acuminata recta *integerrima;* theca in ped. *brevi* rubro laevi *subinclinata* minute ovalis, operculo cupulato-conico *longe oblique subulato;* perist. *H. intorti,* ciliis internis singulis longiusculis.

Schw. Suppl. I. II. p. 271. t. 91. — *Isothecium crassiusculum* Brid. II. p. 384.

Patria. Insula Tristan d'Acunha: Aubert du Petit Thouars.

Ab *H. intorto,* habitu simili, notis laudatis certe distinguitur.

335. H. Hornschuchii Hmp. (in contextu *H. nitidulati* in Ic. Musc. t. 9.); *monoicum;* caulis laxiuscule cespitosus subgracilis brevissime vage ramosus sordide lutescens, folia caulina *parum homomalla* conferta, *anguste oblongo-lanceolata, stricta regularia* caviuscula, margine erecto, *apice vix denticulato* v. subintegerrimo, nervis binis evanescentibus brevibus, cellulis anguste linearibus longiusculis subpellucidis sordide lutescentibus, alaribus utrinque nervi tribus turgidiuscule vesiculaeformibus flavidis; perich. vaginantia, *breviter acuminata* laxius reticulata, theca in ped. tenuissimo rubro laevi minutissime ovata nutans, ore contracta, exannulata, operc. conico oblique longirostro; perist. d. ext. angustissimi, int. solidi, ciliis singulis brevioribus interpositis.

H. microcarpum Hsch. Fl. Bras. I. p. 84. t. 4. — *Leskea ambigua* Schw. Suppl. II. II. 2. t. 198.

Patria. Brasilia, ad urbem Para et in ripa fluv. Amazonum: Martius.

Ab *H. Beyrichii* et *demisso* caracteribus accuratius datis certe refugit.

b. *Pedunculus scaber.*

336. H. pycnophyllum C. Müll.; *dioicum; cespites densi humiles molles* virescentes nitidi, intus flavescentes, lati; caulis repens, ramis erectis *humilibus* apice saepe dato curvatis ramulosis flexuosis *teneris;* folia caulina erecto-patentia, humore patula, e basi cellulis elongatis utrinque quaternis majusculis *teneris hyalinis* distincte *elongate anguste elliptica, apice in collum angustum brevius stricta et in acumen longissimum gracile valde flexuosum* denticulatum producta, margine erecto v. plus minus revolutaceo integro, nervis obsoletis, cellulis angustissimis linearibus subconflatis pallidissime viridibus, basi flavidis; perich. late longe vaginantia, multo brevius acuminata stricta, superne denticulata, basi laxius et subflavide reticulata; theca in ped. breviusculo, pro planta humili autem longiusculo, purpureo, *superne maxime papilloso* horizontalis *oblonga, basi attenuata substrumosa,* ore

jori, rugulosa badia exannulata, operc. *conico longe rostrato recto;* perist. *valde depressi* breviusculi d. ext. lutei, basi rufescentes, linea media valde exarati, int. aequilongi angustissimi flavidi pertusi, ciliis singulis brevibus.

Hypn. luxurians Dub. (non Montagne) in Moritzi Verz. d. Zolling. Pfl. p. 131!

Patria. Java: Zollinger No. 1739.

Caracteribus cursive impressis species propria, tenella, *H. pungens, hyalinum et strepsiphyllum* in minuto referens.

Incertae sedis.

337. **H. bicolor** Bél. (Voy. dans l'Ind. Or. Bot. II. Crypt. p. 92. t. 10. f. 2.); caulis tenellus pusillus repens divisus, ramis simplicibus brevissimis rarius parce ramulosis planiusculis adhaerentibus, ramulis confertis; folia caulina laxissime imbricata, patula, subplana alterna, lanceolato-acuminata, *enervia integerrima*, oblongo-areolata, e viridi aurescentia nitida; perich. latiora longiora vaginantia; theca in ped. tenero mediocri rubro laevi *suberecta* minute ovalis aurantiaca, operc. brevissimo convexo *rubro, apiculo rufo-brunneo terminato, igitur distincte bicolori;* perist. d. ext. ferruginei, int. flavi, ciliolati. †.

Patria. Insula Bourbonis, ad ped. arborum vetustarum: Bélanger.

H. tenello ab auctore proximum, sed caracteribus supra expositis diversum declaratur.

338. **H. Mauritianum** Bél. (Voy. dans l'Ind. Or. Bot. II. Crypt. p. 93. t. 10. f. 3.); caulis tenellus pusillus repens divisus, ramis simplicibus rarius compositis, ramulis semper *erectiusculis confertis;* folia caulina recta *retroflexa, ramea laxe imbricata*, apice appressa, lanceolata, *acumine piliformi desinentia, subdenticulata* enervia; perich. *pilifera;* theca ovata fere cernua minuta. †.

Patria. Insula Mauritii, in arboribus montis Pouce: Bélanger.

Ab *H. cespitoso* exiguitate, teneritate et caracteri laudatis longe refugit.

331. H. brachypelma C. Müll.; cespitosum *fulv molle humile* erectum; caulis repens, ramis *tenuibu* surgentibus *apice curvatis;* folia caulina laxiuscule im cata, secunda, e basi angustiore anguste lanceolata, *giuscule tenuiter flexuose acuminata*, concava, *subpl culata*, margine *erecto*, nervis binis brevissimis flavi obsoletis, cellulis ubique angustissime linearibus elong pallescentibus, alaribus turgidis majusculis vesiculos mibus pellucidis et flavidis; perich. vaginantia, lon acuminata subdenticulata; theca in ped. *perbrevi* r laevi inclinata *minutissime oblonga.*

H. microcarpum Hook. in Wallich. Catal. No. 7657. — Rar. t. 23. f. 4. — Lond. Journ. of bot. 1840. p. 18.

Patria. Nepal: Wallich.

Notis cursive impressis facile discernibile.

332. H. Boschii Dz. et Molkb. (Ann. sc. nat. 4. p. 306.); *monoicum;* caulis repens *intricato-cespi* vage ramosus, ramis assurgentibus, superne lutesc bus inferne fuscis subnitidis *tenuibus, apice vix* vel *aduncis* subfasciculatis; folia caulina laxiuscule con subsecunda, *madore patula*, anguste oblongo-acu subintegerrima concava, margine parum *inferne* nervis binis obsoletis brevissimis, cellulis elongat ste linearibus subpellucidis basi luteis, alaribus nervi 3—4 turgide vesiculaeformibus aureis; perich. *giuscule acuminata subdenticulata*, inferne vaginanti laxius reticulata; theca in ped. breviusculo rubro nutans minute oblonga brevicolla, ore coarctata, exan lata, operc. convexo subulato-rostrato; perist. minut ext. angusti lutei, int. flavidi solidi, ciliis singulis bre ribus interjectis.

Patria. Borneo: Korthals.

Ab *H. Hornschuchii* affini notis cursive impr differt.

tenellus pusillus fasciculato-ramosus, ramis brevibus tenerrimis erectis, apice subcurvulis, homomallophyllis; folia caulina laxiuscule imbricata, e basi angustissime decurrente *anguste lanceolata parum falcato-acuminata, breviuscula*, margine *erecto, basi distinctius superne minus denticulato*, nervo carinato viridi subtenui subexcurrente, cellulis minutis mollibus teneris virescentibus, alaribus paucissimis minute quadratis; perich. multo majora vaginantia, late lanceolata breviter subfalcatim acuminata, laxius areolata, obsoletinervia; theca in ped. elongato tenero laevi parum tortili *in collum distinctum incrassato aurantiaco erecta subclavato-oblonga tenella pulchella*, plus minus majuscula, fusca, annulata, leptodermis, operc. *breviter conico* luteo, *rostello brevissimo incurvo pallido;* perist. d. ext. teneri lutei dense trabeculati, int. flavidi laeves vix pertusi fragiles, ciliis singulis albis brevibus.

Hypnum serpens v. compactum Hook. in Drumm. Musc. Amer. No. 188.

Patria. America septentrionalis, ad terram locis umbrosis humidis: Drummond in locis accuratius non designatis.

Species notis expositis distinctissima et elegantissima, cum nulla alia confundenda.

341. **H. parvulum** C. Müll.; *monoicum;* late decumbens viridissimum *pusillum tenellum* vage ramulosum; folia caulina erecto-conferta, humore *patentia subsquarrosa, e basi anguste cordatâ ovato-lanceolata, planiuscule carinata*, laevia, amoene breviter pellucide reticulata viridia, nervo tenui *ultra medium evanido*, margine infima basi ad cellulas alares minute quadratas granulosas chlorophyllosas parum revoluto, *superne pseudo-denticulato;* perich. vaginantia, subreflexa, basi laxius reticulata; theca in ped. brevi rufulo laevi erecta *minute ovalis, annulo obscuro persistente*, operc. e basi convexa *breviter obliique rostellato;* perist. minuti d. ext. lanceolati *brevissimi irregulares latiusculi, linea media secedente plerumque irregulariter bifidi*, densius trabeculati, rufescentes, interni

flavidi *bifidi* aequilongi, ciliis rudimentariis singulis interpositis.

Rhegmatodon parvulus Hmp. Ic. Musc. 1844. t. 14, c. perist. externo! — *Clasmatodon pusillus* Hook. et Wils. Lond. Journ. of bot. 1842. p. 421. t. 25. — *Leskea parvula* Hmp. Linn. XIII. p. 461

Patria. America septentrionalis ubi in locis non designatis ad arbores legit Schweinitz; prope Ebenezar ad flum. Savannah soc. *Cryphaeae heteromallae:* Beyrich; in arboribus prope New-Orleans: Drummond; in Ludovicia, Alabama, Georgia et Carolina utraque copiosissime legit Sullivant.

β. Pedunculus scaber.

342. H. capillare Sw. (Prodr. Fl. Ind. Occ. p. 141.); *monoicum;* caulis filiformis tener, ramis vagis *longiusculis attenuatis* capillaribus divisus, repens viridis rigidiusculus; folia caulina laxiuscule imbricata, erecto-patentia, vix secunda, latiuscule ovato-lanceolata acutiuscula, subdenticulata; carinata, nervo flavido ante apicem evanido, margine erecto, cellulis brevibus subellipticis, utriculo primordiali valde chlorophyllosis, densis, alaribus quadratis *majusculis intus valde granulosis multis;* perich. ovata angustius acuminata, tenerius reticulata, distinctius et tenerrime denticulata, obsoletinervia; theca in ped. breviusculo rubente muriculato *erecta minute ovata, junior anguste obovata, pallida,* anguste annulata, operc. conico oblique rostellato aurantiaco; perist. d. ext. breves lutei, int. angustissimi rugulosi subperforati flaviduli, in membr. flavida subgranulosa positi, ciliis singulis rudimentariis.

Leskea capillaris Hdw. Muse. IV. p. 25. t. 10! foliis false enervibus delineatis. — *L. minutula* Brid. Sp. Musc. II. p. 69! Br. univ. II. p. 301. — Brid. II. p. 308. — *Hypnum furcatum* Brid. Sp. Musc. II. p. 151. — *H. Portoricense* Balbis in schedis.

Patria. Jamaica interior, ad arbores: Swartz. Mexico, ad Misantla: Deppe et Schiede inter filices; in Hispaniola et Porto-Ricco: Bertero.

Ab *H. pumilo,* statu sterili affini, caracteribus datis longe differt.

343. **H. tenuirostre** C. Müll.; *monoicum; H. capillari* simillimum, sed caulis fasciculatim ramosissimus vidissimus, inferne nigrescens; folia *basi margine distincte convexo-revoluta, profunde carinata, distinctius granulosa*, vix secunda; perich. *multo longius acuminata teneriora ubique pallida* laevia obsoletinervia; pedunculus minus muriculatus, operculum cupulatum turgidum longius umbulatum et obtusatum; perist. d. int. *amoene flavi laevissimi* longiores magis hiantes, ciliis rudimentariis singulis.

Helicodontium tenuirostre Schwägr. Suppl. III. II. 2. t. 293. — *Leskea tenuirostris* Hook. in schedis.

Patria. Brasilia, Rio Janeiro: Beske; Serra dos Orgâos: G. Gardner.

344. **H. lanceolatum** Hmp. et C. Müll.; *monoicum; H. capillari* simillimum, sed folia *robuste lanceolato-acuminata longiora*, e cellulis *firmis, utriculo primordiali vix praeditis*, composita; perich. multo latiora et *longius acuminata, enervia, ubique tenuiter laxe et pellucide reticulata;* pedunculus minus muriculatus, operculum conicum oblique rostellatum; perist. d. int. angustissimi palide flavidi *ubique laevissimi*, haud hiantes, ciliis singulis rudimentariis.

Leskea lanceolata Hmp. et C. Müll. Linn. XVIII. p. 702.

Patria. Prom. b. spei, in sylva primaeva ad Krakamma distr. Uitenhagen: Ecklon.

b. *Theca inclinata.*

345. **H. serpens** L. (Sp. Pl. p. 1596.); *monoicum;* espites latissimi valde depressi viridissimi v. lutescentes; caulis tenerrimus capillaris vage ramosus, ramis tenerrimis capillaribus flexuosis subattenuatis, apice gemmaceis curvulis, laxifoliis v. densius foliosis; folia caulina laxe imbricata remota patentissima, saepius subsecunda, *basi ovata lanceolato-cuspidata, cuspide elongato* striatiusculo, caviuscula, margine erecto vix denticulato, nervo carinato pallescente v. flavescente plus minus va-

lido ultra medium et saepius in cuspidem evanido, cellulis breviusculis *amoene pellucidis laxis ampliusculis, alaribus ad infimam basin seriem unicam sistentibus laxioribus*, plerumque subflavis; perich. majora vaginantia tenerrima, multo laxius reticulata, obsoletinervia; theca in ped. rubro tortili laevi *elongato suberecta, elongate cylindrica longicolla siphoideo-arcuata*, annulata, aurantiaca leptodermis, operc. turgide conico acuto; perist. d. ext. latiusculi rufescenti-lutei, int. flavidi vix pertusi laeves, ciliis aequilongis binis albidis laevibus.

Hdw. Musc. Fr. IV. p. 45. t. 18. — *H. Stereodon serpens* Brid. II. p. 642. — *Neckera serpens* Willd. Prodr. Fl. Berol. No. 935. — *Gymnostomum serpens* Schrank. Baiers. Fl. II. p. 439. — H. trichodes serpens, sedis et capsulis longis erectis. Dill. Musc. p. 332. t. 42. f. 64.

H. contextum Hdw. Sp. Musc. p. 278. t. 72; *H. Stereodon contextus* Brid. II. p. 645; nervo ad duas tertias paginae pertingente. — *H. spinulosum* Hdw. Sp. Musc. p. 269. t. 69; *H. Stereodon serpens δ. spinulosus* Brid. II. p. 645. — *H. tenue* Schrad. Crypt. Gew. No. 81; *H. Stereodon serpens ζ. tenuis* Brid. II. p. 646; foliis densius areolatis, ad cellularum parietes granulose pallide chlorophyllosis. — *H. intextum* Voit. Musc. Herbip. p. 106 et in Sturm. Deut. Fl. II. XI et Brid. II. p. 584; ex parte! — *H. capillare* Fröhl. in Hb. Bridel.; foliis obsoletinervibus. In alpibus Austriacis, Schneeberg. — *H. clavellatum* Schrank. Baiers. Fl. II. p. 431; e spec. Fröhlich. foliis magis incrassate areolatis. — *H. viride* Lam. et Dec. Fl. Franç. I. p. 536; foliis viridissimis, magis incrassate areolatis; *H. Stereodon serpens ϑ. viridis* Brid. II. p. 647. — *H. repens* Poll. Pl. Palat. III. No. 1051. f. 11; *H. Stereodon serpens ι. repens* Brid. II. p. 647; *Trichostomum repens* Schrank. Baiers. Fl. II. p. 450; *Bryum repens* Gmel. Syst. Nat. II. p. 1333. — *Pylaisaea radicans* Brid. II. p. 282 et La Pylaie in Journ. Bot. Desv. 1813 No. 5. p. 24. t. 33. f. 2 e spec. Hb. Bridel. huc pertinere videtur.

β. varium; caulis multo robustior; folia e cellulis plerumque incrassatis pachydermibus composita, crassius nervosa.

Hypnum Stereodon varius Brid. II. p. 652; *H. varium* P. B. Prodr. p. 72; *Leskea varia* Hdw. Sp. Musc. p. 216. t. 53. — *Hypnum tenax* Hdw. Sp. Musc. p. 277. t. 72; Brid. II. p. 496. — *H. orthocladon* P. B. Prodr. p. 67; Brid. II. p. 537. — *H. inordinatum* Brid. Sp. Musc. II. p. 182; Br. univ. II. p. 483; Schw. Suppl. III. II. 2. t. 287. — *H. Stereodon radicalis* Brid. II. p. 651; *H. re-*

dicale P. B. Prodr. p. 68, e spec. auctoris foliis arctius areolatis; *H. debile* Brid. Sp. Musc. II. p. 250; *H. humile* P. B. Prodr. p. 68. — *H. pachypoma* Schw. Suppl. I. II. p. 259 et Suppl. III. II. 2. tab. 287; Brid. II. p. 538.

Patria. Per totam Europam et Americam septentrionalem vulgatissimum, ad terram, arborum radices, saxa, lapides, ligna etc., locis humidis. — *Ex hyeme usque ad Julium.*

Species, ut synonymia ostendit, maxime polymorpha, quoad vestigia laudata tamen facile discernenda.

346. **H. pallidirostrum** Brid. (mst. in Br. univ. II. p. 767.); *dioicum;* cespites late prostrati tenerrimi intricati luteo-virentes; caulis tenerrimus confervoideus, ramis similibus pinnulatis vage ramosus; folia caulina *erecto-patentia* remotiuscula parvula, *lanceolata acutata, latiora*, carinato-concava, margine erecto *subdenticulato, nervo viridi ante apicem evanido*, cellulis parvis *laxiuscule pellucidis* et chlorophyllosis, alaribus vix distinctis quadratis paucissimis; perich. multo majora, e basi late vaginante ovatâ subito fere in acumen breviusculum acutatum denticulatum producta, *ubique tenuiter pellucide laxius reticulata, obsoletinervia*, ante acumen minute sinuato-dentata; theca in ped. brevi *validiusculo muriculato* rubro horizontalis *turgide globoso-ovalis, pulchre aurantiaca;* operc. oblique subulato; perist. *majoris* d. ext. breves angusti rufescentes, int. flavidi tenerrime punctulati angusti parum hiantes, ciliis binis albis rugulosis.

H. pumilum Wils. in Engl. Bot. Suppl. t. 2942! — *H. praelongum* ϑ. *pallidirostrum* Brid. II. p. 767!!

Patria. In Germania occidentali, ubi in hortis arcium prope Heidelberg et Karlsruhe ad terram in locis umbrosis, rarius ad arborum radices primus detexit Alex. Braun 1826! Anglia, in lapicidio arenario prope Warrington, ubi Wilson detexit et W. P. Sch. 1847 Februario legit, qui specimina pulcherrima humanissime nobiscum communicavit. In Pyrenaeis occ. et centr. in solo calcareo sylvarum pr. Pau et Bagnères-de-Bigorre pl.

femineam, pr. Dax Aquitaniae in arenosis pl. masculam Spruce legit.

Ab *H. confervoide* statu sterili simillimo notis cursive impressis longe distans, *H. serpenti* autem e structura folii affinius. Pulcherrima species!

347. H. confervoides Brid. (Sp. Musc. II. p. 153.); *monoicum;* cespites late *prostrati depressi* tenerrimi sordide viridissimi v. lutescentes; caulis valde vage ramosus maxime tenerrimus confervoideus *rigidiusculus pinnatus;* folia caulina patula vel appressa remota vix subsecunda, minuta, lanceolato-acuminata, enervia, concava, integerrima, cellulis minute ellipticis laevibus, *firmis* incrassatis, alaribus vix ullis; perich. *multo majora, late* vaginantia profunde concava obsoletinervia ovato-acuminata *tenerrime denticulata* viridia, basi vel ubique pellucidius et laxius reticulata; theca in ped. brevi rubro laevi *rigido firmo horizontalis* minute ovalis, anguste annulata, fusca, *major,* operc. conico obtuso brevi; perist. d. ext. minuti lanceolati lutei, *latiores,* int. flavidi angustissimi vix hiantes laeves, ciliis singulis vel binis *distinctis* hyalinis.

H. Stereodon confervoides Brid. II. p. 583. — *H. Conferva* Schw. Suppl. II. I. p. 158. t. 142. — *Leskea confervoides* Spruce in Lond. Journ. of bot. IV. 1845. p. 182.

H. byssoideum Brid. Hb. vel *H. jungermannioides* Brid. II. p. 549!

Patria. In monte Calenberg prope Vindobonam: Fröhlich detexit; ad lapides inter fruticeta pr. Heiligenblut Carinthiae et Salisburgum: Funk; monte Splügen Rhaetiae W. P. Sch.; praeterea locis aliis alpestribus Helvetiae atque Austriae; ad saxa in valle Intelvi ad Larium: Garovaglio; in Germania centrali prope Naumburgum ad Salam sitam: Beneken; in Norvegia et prope Gefle Sueciae ex Ångström. In America septentrionali, ad saxa calcarea in comitatu Greenbier Virginiae leg. Sullivant. E montibus humilioribus usque ad alpes ascendit. — *Ex Augusto per hyemem.*

Ab *H. Sprucei* notis illustratis differt. Species, a Bridel descripta, folia appressa ostendit.

348. **H. subtile** Hoffm. (Deut. Fl. II. p. 70.); *monoicum; H. confervoidi* simillimum, sed folia caulina subsecunda minute ovata *longius acuminata pellucidius areolata*, enervia, vel nervo obsoletissimo brevissimo vix conspicuo, subintegerrima, *valde patula, majora;* perich. caulinis robustiora, latiuscule vaginanti-ovato-lanceolata, *longiuscule stricte acuminata integerrima, ubique pellucide et laxius reticulata* enervia v. obsoletinervia; theca in ped. longiore tenero purpurascente laevi *suberecta cylindraceo-oblonga*, anguste annulata, pallida, dein fusca; perist. internum ciliis *singulis rudimentariis.*

Leskea subtilis Hdw. Musc. Fr. IV. p. 23. t. 9. — Brid. II. p. 309. — *Neckera subtilis* Musc. Rec. II. II. p. 45. — Hypnum trichodes serpens, setis et capsulis longis erectis. Dill. Musc. p. 329. t. 42. f. 64. B. — H. minimum, foliis ovato-lanceolatis, capitulis erectis, operculis conicis. Hall. Hist. St. Helv. n. 1757; fide Bridelii.

Patria. Per totam Europam et in America septentrionali, sed, uti videtur, regionibus arcticis exclusis, ad truncos arborum praesertim zonae montosae et subalpestris, rarius ad rupes. — *Vere.*

Ab *H. Sprucei* differt: foliis caulinis laxius reticulatis, perich. multo latioribus integerrimis, theca cylindraceo-oblonga, ore aequali haud dilatato praedita, longiore et cespitibus prostratis.

349. **H. Sprucei** Bruch. (in litteris!); *dioicum! H. confervoidi* simillimum, sed caulis *erectus mollis tenerior;* folia caulina *erecto-patula majora et magis acuminata,* subsecunda; perich. *minutissima, anguste vaginantia, longiuscule acuminata, minute spinulose denticulata;* theca in ped. *tenerrimo suberecta minutissime obconica brevicolla macrostoma, sicca ore lato valde coarctata;* perist. minus, internum ciliis *singulis rudimentariis, saepius obsoletis, fugacissimis.*

Leskea Sprucei Bruch. in litt. et Spruce in Lond. Journ. of bot. 1845. 4. p. 180. — *Hypnum confervoides* Drumm. Musc. Amer. No. 190!

Patria. Anglia, ad rupes basalticas locis umbrosis „by the Tees' side below Winch Bridge": Spruce soc. *Jungermanniae trichophyllae* detexit; in Pyrenaeis occidentalibus, in rupium umbrosarum fissuris montis Lizé et vallis Béost (♀) et in Pyren. centralibus, ad Vallon de Courbettes atque Forêt de Lhieris, *Mnio serrato* intermixtum (♂): Spruce. Ad rupes umbrosas in Rocky Mountains Amer. sept.: Drummond inter *Distichium capillaceum* legit.

350. **H. incurvatum** Schrad. (Crypt. Gew. No. 80.); *monoicum;* cespites latissimi deplanati viridissimi; caulis repens, ramis *filiformibus* teneris assurgentibus flexuosis curvatis brevibus; folia caulina *valde secunda* plumulosa imbricata, anguste ovato-acuminata substricta, integerrima, concava, margine *erecto*, nervis binis *brevissimis viridibus* tenuibus, cellulis anguste linearibus *chlorophyllosis*, alaribus *paucis quadratis minutis granulosis, omnibus mollibus;* perich. late vaginantia longe reflexiuscule acuminata enervia, basi laxius reticulata; theca in ped. longiusculo purpureo laevi *inclinata parva arcuate cylindraceo-oblonga*, badia, annulata; operc. *conico acuto recto;* perist. d. ext. angustiuscule lanceolato-subulati lutei, int. angustissimi flavi laeves vix pertusi, ciliis binis albis rugulosis interpositis.

Brid. II. p. 451. — Schw. Suppl. I. II. p. 285. t. 94. — *H. leskeoides* Brid. Sp. Musc. II. p. 177. — *H. Swartzii* Brid. Sp. Musc. II. p. 178. vel *H. plumosum* Sw. Act. Holm. et *Leskea plumosa* Sw. Musc. Suec. p. 69.

Patria. Per totam Europam, e planitie usque ad alpes ascendens, regiones nivales et arcticas refugiens, ad lapides humidas praesertim sylvarum umbrosarum. Ex insula Terre Neuve Americae septentr. retulit La Pylaie.

Caracteribus laudatis facile cognoscendum.

Sterilia tantum nota.

351. **H. tenuicaule** Spruce (Ann. and Mag. of Nat. Hist. 1849. Musc. Pyren. No. 72.); dioicum; pusillum molle cespitosum tenerrimum flavescens ascendens parce

mosum, ramis subdichotomis subappressis, elongatis terrimis flaccidissimis; folia caulina *erecto-patentia* plulose imbricata, angustissime lanceolata, *longe piliformacuminata*, concava, margine *inferne parum revoo, superne denticulato, nervo tenui carinato elongato, rius brevi et subfurcato*, cellulis elongatis *pellucidis*, aribus paucis planis quadratis *pellucidis;* perich. ext. nima rotundata apiculata, int. majora, e basi ovatoiceolatâ *capillari-acuminata*, intima parvula subulata l *capillaria*.

Patria. In zona montosa Pyrenaeorum centralium, arborum radicibus sylvae Bois de Lagaillaste dictae in cinia Bagnères-de-Bigorre sociis *H. Haldaniani et eckerae repentis* legit Spruce.

H. incurvato simili caracteribus designatis alienum. ertile adhuc non observatum.

352. **H. Durieui** Mont. (in Fl. Alger. ined.); *H. teaicauli* simillimum, sed parum rigidius; folia caulina ereo-patentia, nunquam subsecunda, *e basi parum dilata ovato-lanceolata*, breviuscula stricta, carinata, nervo ico dimidiato, rarius brevi furcato, margine *ubique ereo subintegerrimo*, cellulis *brevibus* angustis *pallescentius*, alaribus *vix ullis minutissime quadratis.*

Patria. Algeria, insula La Galité: Durieu.

Nulli fertile visum.

Incerta.

1. **H. viridulum** Hartm. (Skand. Fl. ed. 5. p. 324.); ules ramique breves subcapillacei molles divisi; folia te ovata, apice brevi plerumque obtuso-acutata, interrima, concava, nervo brevi saepissime duplici; theca ovata subobliqua. †.

Patria. In rupibus alpestribus rarissimum, in Lapnia Lulensi, ad Sarkavare: Holmgren.

Ex animadv. auctoris *H. arctico* Sommerf. valde afne, sed multo tenuius, fere ut *H. serpens.* Cespites

densos intricatos superne viridi-nitentes, in societate *Neckerae complanatae et Metzgeriae furcatae*, format; folia in apicem plus minusve obtusum subito contracta; theca operculo nullo observata. Species, si revera bona, ex novo nuncupanda, quum *H. viridulum* Brid. jam longe conditum sit.

2. **H. Sibiricum** C. Müll.; caulis decumbens subramosus *gracillimus* elegantissimus, pilo multo tenuior, *dense implexus;* folia remota undique fere *horizontaliter patentia* ovato-lanceolata acuminata concava *inaequaliter elegantissime ciliato-serrata, ciliis horizontaliter patulis, enervia, dorso asperula s. papillosa, circulariter elegantissime areolata.* †.

H. gracile Weinm. Bull. soc. imp. de Moscou 1845. p. 492.

Patria. Sibiria: Hb. Acad. Sc. Petrop.

H. hirtello affine videtur. Auctor Hypnis serpentibus adnumeravit. Notis cursive impressis species propria bona revera videtur.

Sectio V. **Rigodium** Kze. emend. Caulis dichotome vel pinnatim ramosus, decumbens vel assurgens, *rigescens, firmus*, saepius inter folia caulina filis teneris in folia transeuntibus obtectus; folia *scariosa vel firma, plerumque tenerrime papillosa, e cellulis brevibus densis firmis areolata.*

Inter *Mallacodium* et *Theliphyllum* pulcherrime intermediae plantae, ab illo caracteribus laudatis, ab hocce foliis haud rotundate areolatis, nec opacis, diversae, saepius tamen sedem difficillime docentes, nunc ad *Mallacodia* nunc ad *Theliphylla* magis spectantes. Cellulas alares in foliis hujusce sectionis atque sequentis vesiculaeformes hucusque nunquam sed quadratas vel vix ullas observavimus.

Subsectio I. **Drepanophyllaria.** Caulis decumbens vel ascendens, dichotome vel pinnatim ramosus, *apice ut rami uncinatus vel curvatus*; folia *falcata*, nunquam squarrulosa.

a. *Folia enervia.*

353. **H. scorpioides** L. (Sp. Pl. p. 1592.); *dioicum;* cespites lati proceri luteo-rufescentes; caulis elongatus

robustus, ramis patentibus turgidis brevibus apice curvatis remote pinnatus; folia caulina laxe appressa, secunda, *latissime ovato-oblonga obtuse acuta caviuscula integerrima*, margine erecto, hic illic involutaceo, *enervia*, cellulis angustissimis densissimis viridibus basi chlorophyllosis, alaribus *ad basin infimam totam majusculis laxis tenerrimis pellucidis;* perich. erecto-appressa, late lanceolato-acuminata, valde plicata, basi laxius reticulata; theca in ped. *elongato* rufescente crasso *arcuato-cylindracea turgida subhorizontalis* aurantiaca, exannulata, operc. conico; perist. d. ext. robusti, int. teneri albidi hiantes subangusti, ciliis 2—3 nodosis.

H. Stereodon scorpioides Brid. II. p. 637. — *H. squarrosum* Timm. Prodr. Fl. Megap. p. 827. — *H. crassum* Schum. Pl. Sael. fl. p. 84. — *H. fuscum* Schleich. Cent. IV. n. 24. — H. scorpioides, palustre, magnum, lycopodii instar sparsum. Dill. Musc. p. 290. t. 37. f. 25.

Patria. In locis profunde turfosis per totam fere Europam, e planitie in alpes ascendens, usque ad Lapponiam et in America septentrionali. — *Aestate*, sed rarius fructificans.

Notis laudatis propria species.

b. *Folia uninervia.*

α. Nervi excurrentes.

354. **H. filicinum** L. (Sp. Pl. p. 1590.); *dioicum!* cespites lati procumbentes rigidi virescentes v. aurescentes; caulis decumbens longus valde ramosus rigidus, *foliolis veris brevibus lanceolatis paucissimis*, saepius tomento obtectus, ramis tenerrimis simplicissimis brevibus densis v. robustioribus plus minus iterum pinnatim ramulosis rigidis *apice distincte uncinatis* 1—2 pinnatim partitus; folia caulina *distincte homomalla*, plus minus laxiuscule imbricata, *e basi dilatata, alis magnis maxime ventricose impressis, laxe majuscule pellucide reticulatis praeditâ late hastato-acuminata, falcata*, margine erecto *ubique denticulato*, nervo crasso flavo v. rufescente in cuspidem exeunte, cellulis firmioribus brevibus pachyder-

mibus; perich. latiuscule lanceolato-acuminata appressa stricta subplicata *denticulata*, laxe tenuiter pellucide reticulata, nervo obsoleto in acumen exeunte; theca *H. fluviatilis*.

Brid. II. p. 527. — Hdw. Sp. Musc. p. 285. t. 76. — *H. compressum* Brid. Musc. Rec. II. II. p. 58. — *H. polycarpon* Blandow, Voit. in Sturm. D. Fl. Crypt. Fasc. 14! — *H. extricatum* Hoffm. Deut. Fl. II. p. 62. — *H. affine* Hoffm. l. c. p. 61. — *H. prolixum* Vill. Pl. Dauph. III. p. 914. sec. De Notaris. — *H. flaccidum* et *glareosum* Schleich. in schedis. — *H. filicinum* β. *trichodes* Brid. II. p. 529; *H. trichodes* Brid. Sp. Musc. II. p. 236; *H. dubium* Brid. Musc. Rec. II II. p. 64; *H. rubrum* Vill. Pl. Dauph. III. p. 897; *H. conspurcatum* Brid. in schedis. — *H. filicinum* γ. *pendulum* Brid. II. p. 530. — *H. gracilescens* Bland. in Brid. Sp. Musc. II. p. 211; *H. filicinum* δ. *gracilescens* Brid. II. p. 531. — *H. filicinum* η. *pinnatum* Brid. II. p. 532. — H. repens, filicinum trichodes palustre. Dill. Musc. p. 286. t. 36. f. 21!

Patria. Per totam Europam atque Americam septentrionalem, locis uliginosis, e planitie ad zonam subalpinam ascendens. — *Vere et aestate.*

Maxime varians quidem, sed tamen ab *H. fluviatili* caracteribus cursive impressis facile distinguitur; ab *H. commutato* filis caulis confervoideis carens jam differt.

355. **H. fluviatile** Sw. (Musc. Suec. p. 63.); *monoicum!* cespites late procumbentes rigidi virescentes v. aurescentes; caulis decumbens longus vage divisus rigidus filiformis, ramis *longiusculis vagis, apice haud vel vix curvulis*, rigidis simpliciter v. subpinnatim dispositis; folia caulina erecto-appressa v. subsecunda v. remota, *e basi angustata et medio parum latiore anguste lanceolata, apice parum incurvo*, carinato-concava, firma, margine erecto integerrimo, nervo crasso flavo v. rufescente excurrente v. in cuspidem exeunte, cellulis brevibus firmis saepe incrassatis diaphanis v. lutescentibus pachydermibus, alaribus *paucis planis* quadratis laxiusculis fuscescentibus; perich. appressa stricta pallidissima, longiuscule vaginantia anguste lanceolato-acuminata, elongate laxe tenuiter pellucide reticulata, nervo subvalido flavido in cuspidem subexcedente; theca in ped. elongato rubro laevi lon-

giuscule cylindrica arcuata inclinata, late annulata, operc. cupulato apiculato; perist. d. ext. lati longi lutei, intus maxime cristati, int. lati vix pertusi subpunctulati flaviusculi, ciliis 2—3 longis albis rugulosis remote nodosis.

Brid. II. p. 532. — Hdw. Sp. Musc. p. 277. t. 81. — *H. luridum* Sw. Musc. Suec. p. 68 ex Hartm. Sk. Fl. — *H. Seligeri* Brid. Musc. Rec. II. II. p. 67. — *H. flagelliforme* Brid. Sp. Musc. II. p. 240. — *H. diffusum* Blandow in Brid. Sp. Musc. II. p. 243! Brid. Br. univ. II. p. 538. — *H. Caucasicum* Brid. II. p. 535! — *H. fallax* Brid. Musc. Rec. II. II. p. 66. t. 2. f. 1. — *H. Vallis Clausae* Brid. Sp. Musc. II. p. 238! et Br. univ. II. p. 534. — *H. arrhizon* Brid. II. p. 535! — *H. filicinum ε. lanatum* Brid. II. p. 531; *H. radicabundum* Brid. in schedis; *H. lanatum* Sterm. in Schrift. d. Gesellsch. der Nat. Hist. I. 2. Heft. p. 30.

Patria. Per totam Europam, Americam septentrionalem et in Archipelago antarctico, locis uliginosis, planitiem et zonam montosam habitans. — *Aestate.*

Valde polymorphum, *H. filicino* proximum, notis autem laudatis procul dubio distinctum.

356. H. hispidum Hook. et Wils. (Lond. Journ. of bot. 1844. p. 552.); caulis laxe cespitosus longissimus, rami ascendentes *apice fastigiatim breviter divisi arcuati,* e viridi lutescentes, rigidissimi; folia caulina densiuscule imbricata, indistincte falcato-secunda, rigidissima, sicco flexuoso-crispata, madore erecto-patentia strictiora, e basi late ovata concava, ob marginis reflexionem distinctissimam biplicatâ subito *in subulam longam subfalcatam rigidam, nervo crassissimo subcanaliculato lutescente omnino occupatam opacam attenuata,* e cellulis ubique rotundis incrassatis firmis scariosis lutescentibus areolata; perich. minora ovata, nervo longe exserto; theca in ped. laevi ovata aequalis, operculo longirostri.

Cum ic. in Fl. Antarct. I. p. 140. t. 61.

Patria. Insulae Aucklandi, ubi sterile legit J. D. Hooker; Nova Seelandia, fertile: J. D. H.

Fructum non vidimus. *H. fluviatili* proximum, notis laudatis distinctissimum, amphibium, cujus forma aquatica elongata *Cinclid. aquatico* similis.

357. H. conspissatum Hook. et Wils. (Lond. Journ. of bot. 1844. p. 553.); caulis *elongatus fluitans* ramosus, ramis plus minus longis *fastigiatim dispositis* sordide viridibus, apice subincurvis, rigidis *robustis;* folia caulina densiuscule imbricata, plus minus falcato-secunda, rigida, *crassiuscula* opaca, carinato-concava, anguste ovato-lanceolata, nervo crasso excedente pungentia, *limbo crassissimo* tenerrime papilloso circumducta, integerrima, cellulis opacis maxime pachydermibus subrotundatis, sordide viridissimis, alaribus vix conspicuis incrassatis.

Cum ic. in Fl. Antarct. II. p. 419. t. 155. f. 3.

Patria. Insulae Kerguelen et Falklandi, locis paludosis vel in aquis ipsis fluitans: J. D. Hooker, Lyall.

E distinctissimis, sterile tantum observatum, *H. fluviatilis* formis robustis proximum. *Cinclidodontibus* habitu haud dissimile.

β. Nervi evanescentes.

358. H. commutatum Hdw. (Musc. Fr. IV. p. 68. t. 26.); *dioicum;* cespites lati molles sordide virides ferruginei; caulis procumbens assurgens, ramulis gracilibus *maxime secundifoliis* simplicibus *apice recurvis* densissime approximatis apicem versus sensim brevioribus valde pinnatus, *filis conferviformibus basi latioribus parce divisis obtectus;* folia caulina laxe imbricata *late hastato-lanceolata breviter acuminata falcata, superne tenuiter serrulata, firma, leviter plicata,* carinata *laevia* margine subinvolutaceo, nervo valido ultra medium evanido luteo, cellulis *minutis incrassatis luteo-viridibus pachydermibus subdiaphanis,* alaribus *majoribus paucis incrassatis fuscidulis v. pellucidis;* perich. valde exserta appressa stricta, late lanceolata plicata subintegerrima, multo pallidiora, laxius reticulata, nervo latissimo ante apicem evanido; theca in ped. crasso purpureo flexuoso laevi geniculato-ascendente subhorizontalis, e basi turgida arcuato-cylindracea, badia, operc. conico acuto, annulo angusto; perist. robusti d. int. in membr. alta flavida angusti hiantes, ciliis 1—2 brevioribus albidis.

Brid. II. p. 523. — *H. vitellinum* Brid. II. p. 769! — *H. filicinum* Vill. Fl. Dauph. III. p. 897. — *H. diastrophyllum* Sw. Musc. suec. p. 58. — *H. glaucum* Lam. et Dec. Syn. Fl. Gall. p. 108. — *fontanum* Nonnull. — H. repens filicinum crispum. Dill. Musc. 282. t. 36. f. 19. A—F.

β. falcatum; caulis magis fluitans laxius foliosus, folia minus circinnatis. *H. falcatum* Brid. Sp. Musc. II. p. 212. Br. univ. II. p. 526.

Patria. In locis fontanis aquosis totius Europae, e planitie in alpes, ubi var. *β.* praeprimis habitat, ascendens. — *Aestate,* raro fructificans.

Notis cursive impressis species distinctissima.

359. **H. lycopodioides** Schwägr. (Suppl. I. II. p. 00.); *dioicum; H. scorpioidi* habitu simile, *sed caules et rami flaccidi;* folia caulina *late lanceolata longe acuminata falcata* robusta, margine erecto integerrimo superne subinvolutaceo, *nervo lato ante apicem evanido,* cellulis laribus *vix ullis minutissimis incrassatis viridibus;* perich. caulinis similia, stricta ubique laxius reticulata, *nervosa* plicata; theca *H. scorpioidis.*

H. Stereodon lycopodioides Brid. II. p. 632. — *H. rugosum* Web. et Mohr. Bot. Taschb. p. 362. — *H. scorpioides* Schultz. Fl. Starg. n. 923. — *H. diastrophyllum* Lam. et Dec. Fl. Franç. I. p. 98. — H. lutescens crispum, Lycopodii facie. Dill. Musc. p. 289. t. 37. f. 24. C. D.

Patria. In locis profunde turfosis per totam Europam, e planitie in alpes ascendens. — *Aestate,* rarius fructificans. Rarum videtur!

Ab *H. commutato,* quocum saepe commutatur, caulibus conferviformibus haud obtecto jam longe distat.

360. **H. rugosum** Ehrh. (Dec. n. 291.); *dioicum;* caespites lati laxe cohaerentes molles amoene lutei robusti floriferi; caulis procumbens assurgens crassus robustus subensifolius, ramis similibus crassis apice curvatis *vel tenuioribus attenuatis* vage ramosus et pinnatus; folia caulina *densissime erecto-imbricata,* secunda, late oblongo-ovata longe falcate acuminata, *ubique rugosa,* margine apice *denticulato ubique revoluto,* dorso *remote denticu-*

lato-scabra, nervo ultra medium evanido canaliculato, cellulis angustis *curvatis in membranam scariosam veluti conflatis* pallidis, alaribus *permultis planis rhomboideo-quadratis incrassatis;* perich. appressa stricta pallidiori, late lanceolato-acuminata longitudinaliter plicata, basi infima laxius reticulata; theca in ped. elongato purpureo inclinata, arcuato-cylindracea, late annulata, operc. conico *suboblique rostellato;* perist. d. ext. lati longi lutei valde cristati, int. in membrana alta flavida densissime reticulata angusti hiantes, ciliis 1—2 brevibus.

H. Stereodon rugosus Brid. II. p. 633. — *H. rugulosum* Web. et Mohr. Bot. Taschb. p. 363. — H. lutescens crispum, Lycopodii facie. Dill. Musc. p. 289. t. 37. f. 24, A. B.

Patria. In collibus apricis argillaceo-calcareis per totam Europam passim et in America septentrionali. — *Vere.* Rarissime fructificans.

Notis laudatis ab *H. scorpioide et lycopodioide* distinctissimum. Flores masculi et feminei fugacissimi.

361. **H. palustre** L. (Sp. Pl. p. 1593.); *monoicum*; cespites lati prostrati virides; caulis repens, ramis fasciculatim divisis *subtenuibus distincte homomallophyllis apice uncinatis*, humore mollibus; folia caulina valde secunda *brevia oblongo-ovato-lanceolata subcomplicate concava, parum falcata*, margine erecto v. paulisper involutaceo *integerrimo*, nervo valido ante apicem evanido *saepe gemino* viridi, cellulis brevibus viridibus minutis, alaribus paucis minutis viridibus, dein badiis plus minus impressis; perich. appressa stricta tenuiora late longe lanceolato-acuminata pallida; theca in ped. *brevi* crasso rufo laevi subflexo inclinata cylindraceo-oblonga cernua exannulata fusca, operc. *conico;* perist. d. ext. longi lati lutei, latere intus distincte cristati, int. in membrana breviuscula flavida subangusti hiantes, ciliis 1—2 albidis nodosiusculis.

H. Stereodon palustris Brid. II. p. 639. — *H. luridum* Sw. Musc. Suec. p. 58 et Hdw. Musc. Fr. IV. p. 99. t. 38. — *H. adustum* Turn. Musc. Hib. p. 165. — *H. heterophyllum* Neck. Meth. Musc. p. 168. — H. heterophyllum aquaticum polycephalum, repens.

Dill. Musc. p. 293. t. 37. f. 27. — *Neckera palustris* Willd. Prodr. Fl. Berol. n. 943.

β. subsphaericarpon; theca magna turgide globoso-ovata rectiuscula. *H. sphaerocarpon* Spreng. Syst. Veget. IV. p. 201. — *H. Stereodon subsphaericarpon* Brid. II. p. 641. — *H. subsphaericarpon* Schleich. Cent. II. N. 46. — H. foliis ovato-lanceolatis falcatis, capsulis ovatis. Hall. Hist. St. Helv. n. 1738.

γ. aquatile; prostratum, foliis magis erectis. *H. aquatile* Mart. Fl. Erl. Crypt. p. 19. t. 1. f. B.

Patria. Per totam Europam et Americam septentrionalem, e planitie in alpes ascendens, aquam stagnantem v. fluentem et ibidem lignum putridum atque saxa habitans. Var. *β.* in alpibus rivulos et saxa humida amans. — *Aestate.*

Subsectio II. **Homomallia.** Caulis ascendens, dichotome ramosus, apice recto; folia *plus minus secunda*, *nunquam falcata*, *nunquam squarrulosa.*

A *Drepanophyllaria* foliis secundis, nec falcatis, a *Strigodio* foliis erectis differt.

a. *Folia secunda patula.*

362. H. rusciforme Weis (Crypt. Gött. 1770! p. 225.); *dioicum;* cespites latissimi laxe intertexti firmi sordide viridissimi; caulis ramis elongatis *robustis squamose foliosis* dichotomis vage ramosus, plerumque fluitans vel repens; folia caulina laxe conferta vel densiora subsecunda, appressa, humore erecto-patula, magna robusta, late ovato-lanceolata, concava, margine erecto remote denticulato, nervo valido ultra medium tenuiter evanido, cellulis angustissime linearibus densis chlorophyllosis, alaribus ad basin parum impressam indistinctis majusculis pachydermibus rectangularibus; perich. pauca appressa, e basi vaginante laxissime reticulata enervi breviuscule et latiuscule acuminata stricta, margine superne hic illic emarginato v. denticulato; theca in ped. molli breviusculo rubente laevi inclinata, e collo brevi *ventricoso-oblonga*, *ore coarctata*, *pachydermis carnosa*, late annulata, fuscidula, operc. conico *longe oblique subulato;*

perist. d. ext. robusti rufescentes, apice subserrulati, int. angusti flavi hiantes subpunctulati, ciliis 2—3 albis subnodosis.

Brid. II. p. 497. — *H. ruscifolium* Neck. Meth. Musc. 1771! p. 181. — *H. ripariοides* Hdw. Musc. Fr. IV. 1797! p. 10. t. 4. — *H. virens* Sw. e Mohri fide. — *H. rivulare* Ehrh. Crypt. Exs. Na. 252. — H. foliis rusciformibus, capsulis subrotundis. Dill. Musc. p. 298. t. 38. f. 31. — *H. prolixum* Dicks. Fasc. II. Pl. Crypt. p. 13. *H. rusciforme β. prolixum* Brid. II. p. 499. Forma longissime fluitans. H. aquaticum, prolixum, foliis ovatis. Dill. Musc. p. 298. t. 37. f. 32 et t. 85. f. 20. — *H. rusciforme γ. fontanum* Brid. II. p. 499. — *H. Atlanticum* Desfont. in Brid. Musc. Rec. II. II. p. 121. t. 4. *H. rusciforme δ. Atlanticum* Brid. II. p. 499. Forma robustissima. H. flagellare, saxatile, capsulis gracilibus. Dill. Musc. p. 306. t. 39. f. 42. — *H. alopecuroides* var. *Hibernicum* Hook. in Hb. Dec. *H. rusciforme ε. alopecuroides* Brid. II. p. 500. Forma ramis elongatis subjulaceis subsimplicibus atro-virentibus. — *H. inundatum* Brid. Musc. Rec. II. II. t. 5. f. 3. *H. rusciforme ζ. inundatum* Brid. II. p. 500. *H. aquaticum* Poll. Pl. Pal. III. p. 1020. *H. obtusifolium* Dicks. inedit. — *H. rotundifolium* Abbot. Fl. Bedfordiens. p. 245. *H. rusciforme η. rotundifolium* Brid. II. p. 501. — *H. rusciforme ι. longisetum* Brid. II. p. 501.

H. Fontium Brid. II. p. 417, ex insula Teneriffae a Bory St. Vincent relatum formam putamus longissimam tenerrimam, foliis rotundius ovatis.

Patria. Ad saxa lignaque aquarum fluentium vel fontium planitiei et zonae montosae per totam Europam atque Americam septentrionalem. — *Auctumno et hyeme.*

E locis maxime varians, sed notis cursive impressis primo visu facillime cognoscendum.

363. **H. duriusculum** Schimp. (in Hb. Schlechtendal.); *monoicum;* cespites *latissimi prostrati dense cohaerentes lutescentes* duri robusti; caulis decumbens valde dichotomus assurgens robustiusculus subteres, ramis *apice curvatis* brevibus rigidis obtusis subjulaceis; folia caulina *dense erecto-appressa,* subsecunda, madore parum patula, *latissime ovata breviter acuminata,* alis basilaribus decurrentibus, ad nervum indistincte ventricose impressis, margine erecto, apice subdenticulato, nervo lato unico, ultra medium evanido, saepius subfurcato, cellulis firmis

breviter linearibus, hic illic implana, concava; perich. vaginantia, acuminata recta enervia, basi multo laxius reticulata; theca in ped. mediocri rubro valido firmo *ubique leviter tuberculoso* suberecta anguste oblonga pachydermis firma exannulata, operculo conico obtuso firmo; perist. d. ext. lutei longiusculi, int. angusti, flavidi valde hiantes, ciliis 1—2 aequilongis albidis interjectis.

Patria. Mexico, in cavernis trachytaceis crateris m. Cerro de los Nabajos, Mart. 1839: C. Ehrenberg.

Notis laudatis jam ab *H. molli* differt et species partibus omnibus firmis duris primo momento facile distinguenda.

364. **H. secundum** Mont. (Ann. sc. nat. 1842. p. 244.); *monoicum;* caulis laxe cespitosus repens, ramis procumbentibus viridibus longiusculis *tenuibus* flexuosis apice parum curvatis subfasciculatim divisis; folia caulina laxiuscule conferta secunda, ovato-lanceolata acuminata concava subdenticulata, acumine brevi semel torto parce serrulato, margine basi parum convexo, nervo ultra medium evanido viridi, cellulis brevibus *firmiusculis* virescentibus, alaribus *paucis parvulis quadratis pellucidis, haud decurrentibus*; perich. multa *squarroso-reflexa*, e basi late vaginante laxe reticulata pellucida enervi *reflexe longe acuminata* subdenticulata, planiuscula; theca in ped. purpureo scaberulo longiusculo *inclinata ovato-oblonga cernua* fusca, exannulata; operc. conico *acuminato incurvo;* perist. d. ext. latiusculi lutei, int. intense lutei hiantes, ciliis binis aequilongis v. brevioribus albidis interjectis.

Patria. India orientalis, ad terram humidam prope Neddoubetta in montibus Neelgheriensibus: Perrottet 1838 legit.

Ab *H. duriusculo* notis laudatis et partibus omnibus multo mollioribus tenerioribus differt.

b. *Folia secunda appressa.*

α. Pedunculus laevis.

365. **H. strigosum** Hoffm. (Deutschl. Fl. 1795. p. 76.); *dioicum*; cespites latissimi conferti laxe cohaerentes virides v. lutescentes; caulis repens, ramis humilibus brevissime ramulosis subjulaceo-teretibus v. magis squarrosifoliis subfastigiatim divisus; folia caulina erecta conferta parvula *subrotundate ovata, breviter obtuse acuminata*, profunde concava, margine infima basi convexo denticulato, *apice distincte serrulato*, nervo latiusculo ante apicem evanido, cellulis brevibus firmis lutescentibus, alaribus paucis minute quadratis pellucidis; perich. e basi latius vaginante subito fere longius acuminata stricta, enervia, longe laxe pellucide tenuiter reticulata, margine superne eroso-denticulata; theca in ped. longiusculo rubro *laevi* inclinata oblonga arcuata annulata, operc. conico *longiuscule oblique rostrato*; perist. d. ext. rufescentes, int. flavi subsolidi laeves, ciliis binis laevibus.

Brid. II. p. 446. — *H. Thuringicum* Brid. Musc. Rec. II, II. p. 99. t. 3. f. 2. — *H. velutinoides* Voit. Musc. Herbip. p. 99. — *H. praecox* Sw. in Hedw. Sp. Musc. p. 249. t. 65! procul dubio huc pertinet forma caule magis julaceo, foliis minoribus thecaque disciformi-ovata breviore. — *H. Stereodon praecox* Brid. II. p. 569. — *H. pulchellum* Hdw. Sp. Musc. p. 265. t. 68! — *H. abbreviatum* Schleich. Cent. IV. No. 25. — *Leskea fasciculosa* Hdw. Sp. Musc. p. 217. t. 54! e spec. auctoris. — Brid. II. p. 305.

H. serrulatum Brid. Hsch. in Brid. II. p. 390 in Chile indicatum, a Chamisso lectum, e spec. peregrinatoris omnino huc sedem tenet! — *H. diversifolium* Schimp. in litt. ad Sullivant! ex Ohione et Novo-Mexico sec. spec. Sulliv. pariter huc revocandum est.

Patria. Per totam Europam, extra arcticam et Britannicam, ad terram, e planitiebus septentrionalibus Germaniae usque in zonam alpinam ascendens. In America septentrionali in terris praeruptis ex Sullivant vulgare, fide Drummondii ad radices arborum e Canada usque ad Rocky Mountains; ad Talcahuano Chiles 1816 leg. A. de Chamisso. — *Vere.*

E statura, foliorum magnitudine atque longitudine et thecae forma variat. Ab *H. Funkii* proximo signis datis facile discernendum; saepius *H. velutino* simillimum.

366. **H. collinum** Schleich. (in schedulis!); *monoicum! H. strigoso* simillimum, sed rami *tenuiores, minus julacei et rigidi;* folia caulina *distinctius subsecunda* et minus appressa, e basi ovata sensim in acumen *longiusculum subobliquum acutatum attenuata*, valde concava, margine *ubique serrulato*, infima basi convexo, nervo carinato tenuiore dimidiato *breviore*, cellulis alaribus chlorophyllosis; perich. late vaginanti-oblonga, ex apice rotundato erose dentato subito in acumen breve strictum denticulatum attenuata, enervia, e cellulis brevioribus laxis composita, enervia; theca in ped. breviusculo rubente laevi *arcuato erecta oblonga* parvula; perist. *H. strigosi.*

Patria. In monte Splügen Rhaetiae legit W. P. Schimper, qui plantulam pulchellam, distinctissimam atque rarissimam nobis humanissime communicavit. — *Aestate.*

H. Funkii pedunculo papilloso primo adspectu differt.

β. Pedunculus scaber.

367. **H. Funkii** Hsch. (in schedis!); *monoicum;* cespites humiles sordide virides decumbentes; caulis repens, ramis pinnatim dispositis humilibus curvulis subfasciculatim brevissime ramulosis teretibus; folia caulina humore et siccitate dense appressa subsecunda, *brevia, e latiuscule ovata basi breviter oblique lanceolata*, profunde concava, biplicata, *nervo profunde canaliculato* ultramedio viridi, margine inferne revoluto, *ubique subserrulato*, cellulis firmiusculis brevibus densis viridibus, alaribus paucis minutissime quadratis subpellucidis; perich. late vaginantia appressa pallida stricta longius acuminata, pellucide elongate laxiuscule reticulata, obsoletinervia v. enervia, subdenticulata, superne margine interdum undulata sinuata; theca in ped. brevi *ubique papilloso* valido

rubro inclinata, turgide gibboso-ovalis, annulata, brunnescens, operc. *conico brevissimo;* perist. d. ext. robusti rufescentes, superne pallescentes serrulati rugulosi, interni flavi granulosi subhiantes, ciliis binis longis nodosis albidis interjectis.

Patria. Alpes Salisburgenses, ubi Julio 1821 legit Funk.

H. strigoso habitu valde simile, caracteribus autem cursive impressis distinctissimum.

368. **H. Sullivantii** Spruce (in Gray's Manual of bot. 1848.); *dioicum;* laxe cespitosum, ramis luteo viridibus rigidiusculis assurgentibus subteretibus vage divisum; folia caulina laxiuscule disposita, *ovato-lanceolata breviter acuminata, acuta,* concava, margine infimae basis reflexo, *ubique serrulato,* nervo ultramedio viridi canaliculato, cellulis brevibus angustis densis virescentibus subfirmis, alaribus paucis minute quadratis; perich. appressa, e basi late vaginante, pellucide anguste elongato reticulata, enervi subito fere in acumen reflexiusculum attenuata, *subintegerrima;* theca in ped. brevi purpureo *ubique valde tuberculoso* inclinata, gibboso-ovalis, late annulata, rubra, subarcuata, operc. *conico acuminato acuto recto;* perist. d. ext. angusti aurantiaci, int. flavi angusti, valde hiantes, ciliis binis hyalinis teneris.

H. praelongum var. Sulliv. Musc. Allegh. Exs. No. 44.

Patria. Ad ripas rivulorum in Tygart's Valley Virginiae et circa Columbus Ohionis: Sullivant.

Ab *H. strigoso* proximo caracteribus designatis certe distinguitur; ab *H. Stokesii* atque *praelongo* statura assurgente, foliorum forma, pedunculo brevi et operculo longinquum, *H. populeo* haud dissimile.

Incertae sedis.

369. **H. inflexum** Harvey (Hook. Ic. Pl. Rar. t. 24; c. descr. Lond. Journ. of bot. 1840. 2. p. 20.); caulis repens vage pinnatus, ramis *brevissimis teneris apice subinflexis amoene pinnatim dispositis lutescentibus* tere-

usculis; folia caulina *squarroso-patentia* minuta subse-
nda, late ovato-acuminata, concava, margine erecto ob
pillas minute denticulato, nervis binis parum divergen-
us tenuissimis carinatis pallidis, cellulis brevibus firmis
nsis lutescentibus, ob papillas singulas scaberrimis,
aribus *permultis rhomboideo-quadratis firmis subobscu-
s;* theca ovata cernua.

Patria. Nepal: Wallich.

Fructum non vidimus. Caracteribus expositis facile
scernibile.

c. *Folia vix secunda patentia.*

a. Pedunculus laevis.

370. **H. molle** Dicks. (Fasc. II. p. 11. t. 5. f. 8.); *oicum;* cespites lati *laxissime cohaerentes;* caulis pri-
arius repens, secundus *longiusculus, pendulus vel flui-
ns, basin versus nudus, turgide teres, apice obtusus,* bhomomallophyllus, ramis paucis similibus apice sub-
urvatis *rigidiusculis* e viridi rufescenti-lutescentibus *sciculatim divisus;* folia caulina appressa, late ovata brotundata cochleariformi-concava obtusa, in acumen eve planiusculum acutata, margine erecto, nervis *binis tiusculis, saepe plus minus in unicum conflatis,* ante icem evanidis viridibus, alaribus paucis laxis pellucis, dein amoene badiis, parum impressis; perich. vagi-
anti-ovata breviter acuminata, *tenerrime membranacea* ellucida laxe reticulata; theca in ped. brevi crasso rufo evi flexuoso *subglobosa cernua subrecta* brunnea, operc. *nico obtuso brevi,* annulo lato; perist. d. ext. breviusculi ti lutei, vix cristati, int. *angusti hiantes* subflavidi, ci-
is *singulis* fugacibus interpositis.

Hdw. Sp. Musc. p. 273. t. 70. — *H. Stereodon mollis* Brid. II. 570. — *H. rupestre* Schleich. Cent. II. n. 47. e Brid.

H alpestre Sw. Musc. Suec. p. 63. t. 6. f. 15 e spec. auth. huc ertinet. — *H. Stereodon alpestris* Brid. II. p. 571. — *H. alpestre* Hdw. Sp. Musc. p. 247. t. 64.

Patria. In rivulis montanis et alpinis forsan totius Europae montosae et alpinae. — *Aestate.*

Notis cursive impressis propria species et ab *H. muralí* toto coelo distans, *H. rusciforme* magis spectans.

371. **H. arcticum** Sommerf.; *H. molli*-simile, sed rami plerumque tenuiores filiformes rigidissimi, squarroso-foliosi; folia caulina *distincte rotundate obtusa*, plerumque minora, nervo *lato unico, cellulis ubique brevibus incrassatis.*

H obtusifolium Hook. in Drumm. Musc. Amer. No. 193 forma videtur ramis crassis turgidis subclavatis, foliis latioribus majoribus. — *Leskea Smithii* Sw. ex Hartmann.

Patria. In alpibus Norvegiae et in Sudetis „am kleinen Teiche", ubi 1838 leg. Sendtner. In rivulo montium Rocky Mountains dict. Americ. sept. leg. Drummond.

β. Pedunculus scaber.

372. **H. Starckii** Brid. (Sp. Musc. II. p. 166.); *hermaphroditum!* cespites late prostrati viridissimi v. lutescentes; caulis repens, ramis *elongatis flaccidis laxissime foliosis* breviter pinnatim ramulosis robustiusculis obtusis, haud attenuatis, vage ramosus; folia caulina *valde patentia, e basi cordato-ovatâ late lanceolato-acuminata, planiuscula*, rarius complicate concava, estriata, margine erecto, *valde serrulato*, nervo elongato ante acumen evanido subtenui, cellulis angustis elongatis pellucidis virescentibus, alaribus ad alas basilares vix impressas paucis vix distinctis rectangularibus pellucidis v. virescentibus; perich. e basi latissime vaginante laxissime reticulata pellucida enervi longissime stricte v. reflexi acuminata, ante acumen suberose v. emarginate denticulata; theca in ped. valido rubro *ubique scabriusculo* mediocri inclinata, arcuato-oblonga brunnescens; perist. d. ext. robusti rubiginosi, int. in membr. alta densissime reticulata flava laevi angusti subhiantes granulosi, cilia binis capillaribus albis nodosis.

Brid. II. p. 595. — *H. androgynum* Wils. in litteris!!

Patria. In Silesia ad terram et arbores detexit Starcke; ad truncos putridos Duc. Megapolitani: Blan-

dow; prope Avenionem legit Requien; in Anglia, ad saxa et arborum radices in comitatu Sussex: Mitten ad W. P. Schimper, qui nobis nomine *H. androgyni* benevole communicavit. Ex aliis locis speciem veram nondum vidimus! — *Vere.*

Caracteribus laudatis paucis jam distinctissimum, habitu *H. Megapolitano v. rutabulo* simile. Species vera, ab auctoribus hucusque valde commutata, e spec. Hb. Bridelii distincte hermaphrodita, pulcherrima!

373. H. Meridense C. Müll. (Linn. XIX. p. 220.); *dioicum;* caulis procumbens laxe cespitosus, ramis *brevibus* rigidiusculis sordide viridibus vage divisus, tenuiusculus; folia caulina laxe veluti squarrulose imbricata, *latissime ovato-lanceolata breviter acuminata,* denticulata, caviuscula, *parum torta,* margine erecto, *superne vix involutaceo,* infima basi vix reflexo decurrente, *nervo unico dimidiato tenui obsoleto,* cellulis brevibus angustissimis virentibus, alaribus minute quadratis pellucidis parum impressis; perich. late vaginantia, in acumen reflexum attenuata, enervia, laxius reticulata, integra; theca in ped. longiusculo rubro *apice scabriusculo* horizontalis, parva, subturgide gibboso-ovalis, fusca, dein nigrescens, operc. breviter conico; perist. d. ext. breves lutescentes, int. angusti valde hiantes flavi laeves, ciliis *longis binis tenerrimis subappendiculatis* hyalinis laevibus.

Patria. Venezuela, in montibus nivosis prov. Meridae: Moritz.

Ab *H. molli* habitu proximo notaculis expositis toto coelo distans et *H. Starckii* simile.

374. H. melanocarpum C. Müll.; *monoicum!* cespites latissimi deplanati sordide virides, rigidiusculi; caulis repens, ramis decumbentibus *robustioribus* flexuosis attenuatis laxifoliis brevibus simplicibus vel longioribus iterum pinnulate ramulosis vage ramosus; folia caulina laxiuscule conferta patula, *anguste ovato-acuminata,* caviuscula, subdenticulata, estriata, nervo viridi tenui ultra medium evanido, margine erecto, infima basi parum im-

presso, *haud decurrente*, cellulis angustissimis *elongatis* densis virescentibns, alaribus paucis minute quadratis subvirentibus; perich. e basi latius vaginante laxe reticulata obsoletinervi in acumen longiusculum flexuosum attenuata, subintegerrima; theca in ped. elongato purpureo apice scaberulo horizontalis, turgide globoso-ovalis brevis macrostoma, nigrescens, exannulata, operc. turgide conico *acuminato apiculato*; perist. *H. Meridensis*.

H. velutinum Duby in Pl. Zollinger. No. 1809 et in Moritzi Syst. Verz. p. 131!

Patria. Java: Zollinger No. 1809.

Ab *H. Meridensi* simillimo caracteribus laudatis longinquum.

Subsectio III. **Strigodium.** Caulis decumbens vel ascendens strigosus dichotome v. pinnatim divisus; folia *squarrulose patentia*, *secunda*.

Ab *Homomallia et Drepanophyllaria* foliis squarrulose patentibus distinguitur.

Folia uninervia.

375. **H. elodes** Spruce (Lond. Journ. of bot. 1845. 4. p. 174.); caulis tenuis procumbens s. erectus, irregulariter ramosus, ramis pinnatis; folia brunnescentia, superiora viridia, laxe imbricata, caulina patula anguste ovato-lanceolata longe acuminata; ramulina erecto-patula, superiora subsecunda subulata setacea, omnia integerrima, nervo perdurante tenui. †.

Patria. Locis humidis sylvae Stockton Forest prope York Angliae, *H. lycopodioidi et scorpioidi* associatum: Spruce 1842. Aug. sterile legit.

H. chrysophyllum Brid. ex auctore differt: foliis magis densioribus squarrosis ovate vel cordate acuminatis gracilioribus, nervo medium non superante et cellulis latioribus brevioribus laxioribus; ab *H. fluitante* nervo semper percurrente, ab *H. filicino* foliis integris et absentia radiculorum caulis, ab *H. fluviatili* textura laxiore et nervo crassiore distinguitur. Beatus Bruch speciem novam sancivit.

376. **H. chrysophyllum** Brid. (Musc. Rec. II. II. p. 84. t. 2. f. 2.); *H. stellato* simillimum, sed rami plerumque procumbentes graciliores, folia subsecunda, *nervo unico ultra medium producto* et cellulis alaribus dein incrassatis fuscis praedita; fructificatio omnino *H. stellati*.

H. Stereodon chrysophyllus Brid. II. p. 598. — *H. fragile* Brid. Sp. Musc. II. p. 198. — Br. univ. II. p. 597. — Schw. Suppl. II. I. p. 162. t. 145. — *H. squarrosulum* Brid. Musc. Rec. II. II. p. 149. t. 4. f. 2. vel *H. Stereodon chrysophyllus β. squarrosulus* Brid. II. p. 599.

Patria. Locis iisdem cum *H. stellato* per Europam et Americam septentrionalem.

Ab aliis scrutatoribus *H. stellati* varietas declarata est.

Folia binervia.

377. **H. stellatum** Schreb. (Spic. Fl. Lips. p. 92.); *monoicum;* cespites alti laxe pulvinulati aurescentes; rami plus minus *robusti*, apice stellatim foliosi, assurgentes, parce breviter ramulosi; folia caulina squarruloso-patentia, saepius subsecunda, *ex ovato in acumen longum acutatum semel tortum vel substrictum canaliculatum subreflexum attenuata*, concava, *integerrima*, margine erecto, nervis binis obsoletis, cellulis firmis angustis densis lutescentibus longiusculis, *alaribus ad alas basilares distincte ventricose impressas majuscule quadratis pellucidis, serius incrassatis fuscis;* perich. e basi longe vaginante longiuscule acuminata appressa stricta, ubique integerrima et elongate pellucide reticulata; theca in ped. longiusculo laevi rubro inclinata, cylindracea arcuata, annulata, fusca, operc. conico brevissimo; perist. *H. Halleri*, internum flavum, ciliis 2—3 interjectis.

H. Stereodon stellatus Brid. II. p. 600. — *H. Mühlenbergense* P. B. Prodr. p. 66! — *H. protensum* Brid. Musc. Rec. II. II. p. 85. t. 2. f. 3. vel *H. Stereodon stellatus β. protensus* Brid. II. p. 602; forma longissima decumbens. — *H. comosum* Vill. Pl. Dauph. III. p. 904. — H. coma lutescente, extremitatibus stellatis. Dill. Musc. p. 302. t. 39. f. 35.

β. tenellum; caules et rami pusilli, saepius filiformes serpentini intricati; partes omnes caeterae minores. *H.*

Sterodon stellatus γ. polymorphus Brid. II. p. 602. — *H. polymorphum* Hdw. Sp. Musc. p. 259. t. 66. — *H. Sommerfeltii* Myrin in Hartm. Handb. i Sk. Fl. Ed. 5. p. 331. — *H. affine* Sommerf. ex Hartman ibidem.

Patria. Per totam Europam atque Americam septentrionalem, in turfosis locisque aliis humidis, terram, rupes et saxa habitans. Var. *β.* locis iisdem plerumque siccioribus. — *Vere.*

378. **H. chrysophylloides** Gümbel (in schedis Sendtnerianis!); *monoicum!* caulis intricatus *gracilior* assurgens rigidus, humore flaccidus, amoene lutescens, *distincte homomallophyllus*, ramis longiusculis *veluti compressis* parce divisus; folia caulina *squarrosulo-patentia*, e basi amplexante subovata subito lanceolato-acuminata, acumine acutissimo tenero breviusculo, stricto, concava, estriata, margine erecto *distincte denticulato*, nervis binis brevissimis, cellulis *ellipticis* subconflatis lutescentibus, basi interdum fuscis, alaribus pluribus *vesiculaeformibus ad caulem decurrentibus albidis;* perich. late ovato-vaginantia valde eroso-denticulata, acumine tenero brevi denticulato terminata, laxius pellucide tenerius reticulata, enervia; theca in ped. longiusculo tenui laevi oblique erecta *longicolla* anguste cylindracea subarcuata, parva; perist. *H. chrysei.*

Leskea intricata Hartm. Sk. Fl. Ed. 5. p. 336. vel *Leskea chrysea* Ångstr. forsan huc pertineat!

Patria. In Sudetis ad Kesselkoppe legit Sendtner 24. Aug. 1839; praeterea in Gothia Sueciae prope Omberg et in Mostamarken Norvegiae ex Ångström et Hartmann sterile observatum.

Species signis expositis ab *H. chryseo* certe distincta; ab *H. stellato* foliis late ovatis, subito in acumen breve planum tenue productis, haud canaliculatis, denticulatis, cellulis alaribus vesiculosis decurrentibus facile distinguitur; ab *H. chrysophyllo* notis modo expositis et nervis binis longe differt.

379. **H. flagellare** Dicks. (Fasc. II. Pl. Crypt. p. 12.); *dioicum; late prostratum*, inferne ferrugineum, su-

perne amoene viride v. lutescens; caulis *vage pinnatim ramosus, inter folia caulina foliolis spinaeformibus cellulosis simplicibus brevibus obtectus,* ramis inaequalibus *longiusculis teretiusculis parum secundifoliis flagellaribus,* apice curvatis; folia caulina *squarrosulo-subsecunda,* late hastate v. cordato-lanceolata *cochleariformi-concava,* margine ubique erecto et *serrulato,* nervis *binis brevibus tenuibus pallidis,* cellulis anguste linearibus brevibus subcurvatis viridiusculis laevibus, alaribus vix ullis minutissimis pallidis; perich. valde exserta squarrosa pallidiora, *latissima longissime acuminata subintegra ubique elongate et laxe pellucide reticulata;* theca in ped. crasso purpureo laevi stricto inclinata oblongo-ovata, operc. conico obtuso brevi.

Hook. et Tayl. Musc. Brit. ed. II. p. 174. t. 25. — Brid. II. p. 434. — *H. Armoricum* Brid. II. p. 525! vel *H. pseudo-commutatum* Lapyl. in Hb. Brid. et l. c.

Patria. Ad saxa juxta rivulos alpium Scotiae et in Hibernia Dickson detexit. In montanis silicosis Armoricae inferioris (Basse Bretagne), ubi in paludibus turfosis prope montem Ménébrée ad oppidi Morlaix occasum et in declivibus uliginosis sylvae Pencran à la Derneau legit La Pylaie. Ad saxa irrigua pr. Bagnères-de-Bigorre Pyrenaeorum: W. P. Sch. auct. 1847; ad catarractam inter pagum Labassère et fontem dict. la fontaine sulfureuse: Spruce; in rupibus humidis sylvae nigrae: A. Braun; ad rupes madidas Bavariae superioris „an der Benedictenwand": Sendtner. Rarissime fertile.

Notis laudatis ab *H. commutato,* quocum *Bridelius* comparavit, toto coelo distans et pulcherrima species.

380. **H. heteropterum** Spruce (in Musc. Pyren. No. 56. Exs. et No. 15. in Ann. and Magaz. of Nat. Hist. 1849.); *dioicum;* dense implexum prostratum, inaequaliter pinnato-divisum ramosissimum, ramis ascendentibus *apice curvatis, luteo-viridibus;* rigidissimis, *tenuibus;* folia caulina laxe imbricata erecto-patentia *subsecunda,* e basi subdecurrente *ovata lanceolato-acuminata falcata v. obli-*

qua implana, eroso-serrulata, margine *inferne indistincte revoluto,* nervo *furcato* latiusculo brevi, cellulis incrassate ellipticis scariosis lutescentibus duris, alaribus magis incrassatis rotundatis, omnibus dorso remote tenuiter papillosis, in caule fertili saturate viridibus; perich. numerosa, externa brevissima, interna elongata et flexuoso-acuminata enervia subdenticulata laxe areolata laevia; theca in ped. semunciali laevi rufo *cernua,* ovato-oblonga late annulata, operc. e basi conica longe obliqua rostrato, *thecam subaequante,* calyptra glabra; perist. d. ext. pallidi, int. solidi, ciliis binis filiformibus interjectis.

Leptohymenium heteropterum Hüb. Musc. Germ. p. 553. — *Pterogonium heteropterum* Bruch in Schw. Suppl. III. 1. 1. t. 210! — *Pterigynandrum heteropterum* Brid. II. p. 176! sed speciminibus tantum Vogesiacis. — *Hypnum catenulatum* H. et Tayl. Musc. Brit. ed. II. p. 160. t. 24 fide Sprucei.

Patria. In monte Hohneck Vogesorum ad arborum truncos sterile leg. Mougeot et Nestler; in Germania occidentali, inter Bonn et Trier fide Hübeneri; in Hercynia superiore: Hampe; in Sudetis, Tiroli, Helvetia; in Hibernia ad Powerscourt Waterfall primus omnium legit Taylor; in Angliae et Scotiae plurimis locis repertum est; ad saxa in sylvis Pyrenaeorum centralium sat frequens: Spruce fructib. onustis 1845. 17. Oct. — Rarissime fertile.

H. flagellari et implexo simile, caracteribus distinctius expositis distinctissimum. Fructum non vidimus.

381. **H. macrocarpon** Hsch. (Nov. Act. Acad. Caes. Leop. XIV. 2. Suppl. p. 725. t. 41.); *dioicum; H. flagellari* simillimum, sed rami breviores minus flagellares, lutescentes; folia caulina minus secunda, latius cordato-ovata breviter acuminata, subpapillosa; perich. magis reflexo-squarrosa; theca in *pedunculo longissimo* horizontalis v. *nutans magna longiuscula turgide arcuato-cylindracea,* operc. e basi convexa *acuminato;* perist. *robusti* d. ext. valde cristati, int. lati rugulosi subhiantes flavidi, ciliis ternis longis albidis subappendiculatis.

Patria. In Malabaria et in monte Gédé Javae insu-
e: Reinwardt.

Annulus? Ex habitu *H. umbrato* quoque simillimum.

382. **H. disparifolium** Tayl. (Lond. Journ. of bot. 848. p. 195.); *dioicum?* procumbens implexum subpin-
atum pallide flavide viride, ramis brevibus, superioribus
lcatis; folia caulina imbricata secunda, e basi lata pau-
per decurrente cordata longius apiculata, enervia, ramea
nceolata acuminata; theca in ped. laevi subunciali apice
rvato subcernua *subsphaerica*, operc. longius rostrato;
rist. int. d. rarius ciliis solitariis brevissimis filiformibus
erpositis. †.

Patria. Monte Pichincha Andium Quitensium: W.
meson, Dec. 1846.

Ex animadv. auctoris *H. flagellari* simile, sed notis
rsive impressis distans.

Incertae sedis.

1. **H. Mertensii** Weinm. (Bull. soc. imp. d. Moscou 845. p. 488.); caulis decumbens dense cespitosus vage
nnatimque valde ramosus flexilis rigidus quadriuncialis,
mulis valde inaequalibus subsimplicibus, apice parum
tenuatis v. aequalibus v. paulisper curvulis, dense con-
rtis; folia arcte imbricata ovato-lanceolata acuminata,
ncava, hyalina, subsecunda, a medio ad apicem usque
rrulata, elongate angustissime lineari-areolata, nervo
tra medium evanido; perich. ext. lanceolata, int. longis-
me producta enervia, apicem versus serrulata; theca in
d. laevi, in ramis propriis orto, purpureo solitario brevi,
ice curvato, parva ovata cernua laevis. †.

Patria. Sibiria: Mertens in Hb. Acad. Sc. Petrop.

Peristomium tantum vetustum et semidestructum au-
or, qui Hypnis triquetris adnumeravit, vidit. Ad *Stri-
dium* magis, quam ad *Anacamptophyllum* pertinere vi-
tur.

Susbsectio IV. **Anacamptophyllum.** Caulis *ascendens* di-
otome vel pinnatim ramosus; folia *reflexo-squarrosa.*

A *Rigodio* notis laudatis differt; a *Strigodio* foliis distincte reflexis distat.

A. *Pusilla.*

383. **H. Halleri** Linn. jun. (Meth. Musc. p. 375.); *monoicum;* cespites *latissimi humiles rigidi ex aeruginoso lutescentes et aurescentes;* caulis longe prostratus repens, ramis *humilibus ascendentibus dense approximatis tenerrimis subsimplicissimis* subpinnatim ramosus; folia caulina *maxime squarroso-patentia, minuta, amplexantia, ovata, breviter et valde reflexe acuminata,* margine infima basi angustissime revoluto, denticulato, nervis binis brevissimis obsoletis, cellulis parvis lutescentibus firmis, alaribus vix ullis minutissime quadratis; perich. e basi longe et anguste vaginante in acumen longiusculum vix reflexum attenuata, subintegerrima enervia, ubique longius et pellucide areolata; theca in ped. longiusculo tenero laevi aurantiaco *inclinata, cylindracco - oblonga cernua tenella,* aurantiaca, annulata, operc. *brevissime conico;* perist. d. ext. lutei, intus valde cristati, int. pallidi tenerrime punctulati angustissimi perforati, ciliis binis longis tenerrimis nodosis albis.

Hedw. Musc. Fr. IV. p. 53. t. 21. — *H. Stereodon Halleri* Brid. II. p. 603.

Patria. In subalpinis et alpinis totius Europae, ad rupes irriguas. In Helvetia primus legit Haller. In America septentrionali ad Portage River in Rocky Mountains legit Drummond.

E caracteribus declaratis facile discernendum, pulcherrimum.

384. **H. hispidulum** Brid. (Sp. Musc. II. p. 198.); *monoicum; H. Halleri* simillimum, sed cespites virides, *nunquam aurescentes, caulibus ramisque* humore mollissimis; folia caulina patentissima, sed vix reflexa, e basi *orbiculari* sensim in acumen *vix reflexum longiusculum acutatum* attenuata, e cellulis mollioribus virentibus composita; theca longius pedunculata, operc. conico *brevissime oblique mucronato.*

H. Stereodon stellatus δ. hispidulus Brid. II. p. 603. — *H. Halleri* var.? Hook. et Wils. in Drumm. Musc. Amer. No. 147.

Patria. In America septentrionali, ubi Mühlenberg in Pensylvania detexit, non rarum, in siccioribus terrestre.

Ab *H. stellato β. tenello* mollitie partium omnium foliisque orbiculari-acuminatis differt.

385. **H. glaucocarpon** Reinw. (in Schw. Suppl. III. I. 2. t. 228.); *monoicum; H. Halleri* simillimum, sed folia *multo majora, late orbiculari cordata acutius breviter acuminata, minus reflexa, maxime implana, valde serrulata,* nervis binis longioribus *distinctis* tenuibus; perich. longius acuminata; theca in ped. *longissimo strictissimo* subflavido laevi *apice valde arcuato nutans, e collo elongato* anguste cylindraceo-oblonga, *medio ventricosa, ore valde coarctata, haud cernua, glaucedine tenui obtecta,* operc. conico-*acuminato;* perist. internum ciliis binis *rudimentariis.*

H. venustum Hsch. et Reinw. in Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 726. t. 41.

Patria. In insulae Javae monte Mulawar: Reinwardt.

B. *Robusta.*

a. *Folia enervia.*

386. **H. aciculare** Brid. (Musc. Rec. II. II. p. 158. t. 5. f. 2.); *dioicum;* caulis primarius densifolius decumbens crassus, ramis elongatis crassis parcissime dichotome divisis lycopodioideo-decumbentibus stramineis, apice stellatim foliosis; folia caulina densiuscule conferta, humore *maxime patentia, e basi coarctata erecta brevissima* subplicata enervi *latissime ovata,* irregulariter rugulosa, *caviuscula,* in acumen robustum reflexum *grossissime serratum* producta, infra acumen denticulata, margine inferne revoluto, cellulis conflatis lutescentibus, basi flavis, alaribus vix conspicuis incrassatis flavis; perichaetia minuta, foliis paucis late convolutis pallidis obtusis, ex apice maxime obtusato in acumen breviusculum subreflexum

A *Rigodio* notis laudatis differt; a *Strigodio* fo distincte reflexis distat.

A. *Pusilla.*

383. **H. Halleri** Linn. jun. (Meth. Musc. p. 35 *monoicum;* cespites *latissimi humiles rigidi ex ocr noso lutescentes et aurescentes;* caulis longe prostr repens, ramis *humilibus ascendentibus dense approxim tenerrimis subsimplicissimis* subpinnatim ramosus; f caulina *maxime squarroso-patentia, minuta, amplex tia, ovata, breviter et valde reflexe acuminata,* marg infima basi angustissime revoluto, denticulato, nervis nis brevissimis obsoletis, cellulis parvis lutescentibus mis, alaribus vix ullis minutissime quadratis; peric basi longe et anguste vaginante in acumen longiusc vix reflexum attenuata, subintegerrima enervia, ubi longius et pellucide areolata; theca in ped. longiusc tenero laevi aurantiaco *inclinata, cylindraceo-obl cernua tenella,* aurantiaca, annulata, operc. *brevissime nico;* perist. d. ext. lutei, intus valde cristati, int. pa tenerrime punctulati angustissimi perforati, ciliis b longis tenerrimis nodosis albis.

Hedw. Musc. Fr. IV. p. 53. t. 21. — *H. Stereodon Halleri* II. p. 603.

Patria. In subalpinis et alpinis totius Europae, rupes irriguas. In Helvetia primus legit Haller. America septentrionali ad Portage River in Rocky lains legit Drummond.

E caracteribus declaratis facile discernendum, pulcherrimum.

384. **H. hispidulum** Brid. (Sp. Musc. II. p. 19 *monoicum; H. Halleri* simillimum, sed cespites virides *nunquam aurescentes, caulibus ramisque* humore mollissimis; folia caulina patentissima, sed vix reflexa, e basi *orbiculari* sensim in acumen *vix reflexum longiusculi acutatum* attenuata, e cellulis mollioribus virentibus composita; theca longius pedunculata, operc. conico *brevissime oblique mucronato.*

arvatis simplicibus v. elongatis iterum ramosis sor-ide viridibus; folia caulina dense conferta ubique in-erta et *maxime squarroso-falcata*, e basi latissime *anduraeformi-ovata concava plicatâ subito in acumen ongum reflexum latum concavum tenuiter attenuatum* enticulatum producta, *summa uncinata*, margine erecto *l acuminis basin involutaceo*, nervis *brevibus obsoletis*, ellulis angustis subconflatis virescentibus, basi infima ba-is, alaribus vix ullis; perich. valde exserta in cylindrum uarrosum arcte imbricata, basi laxius reticulata flavida; eca in ped. longiusculo valido purpureo laevi valde torto nutans *maxime globose ovalis* badia firma exannulata, erc. concolori *hemisphaerico-conico mammillato*; perist. aximi d. ext. latissimi longissimi basi connati badii, apice tei, intus breviter cristati, int. aequilongi maxime hian-s lati flavidi, in membr. alta valde et densissime reti-ulata positi, ciliis 2—3 aequilongis capillaribus nodosis allidis.

Brid. II. p. 515. — *H. heterophyllum* Hoffm. Deut. Fl. II. p. 66. - H. loreum, montanum, capsulis subrotundis. Dill. Musc. p. 305. 39. f. 40.

Patria. E regione montana usque in alpinam ascen-ns, per totam Europam et Americam septentrionalem. — *r hyemem et vere.*

Caracteribus cursive impressis ab *H. triquetro* affini to coelo differt.

389. **H. squarrosum** L. (Sp. Pl. p. 1693.); *dioicum; . loreo* simillimum, sed *rami graciles* albescenti-viri-s; folia caulina *minora, minus falcata*, e basi *late ata caviuscula haud plicatâ sensim in acumen* reflexum bdenticulatum producta, *summa stellata*, margine *ere-, haud involuto*, cellulis *mollibus hic illic papillosis, aribus utrinque basi impressis laxis badiis;* theca *H. iquetri.*

Brid. II. p. 511. — H. repens, triangularibus foliis reflexis, jus. Dill. Musc. p. 303. t. 39. f. 38.

Patria. In locis uliginosis, praesertim graminosis totius Europae, Asiae et Americae septentrionalis, planities praeferens, rarius fertilis. — *Hyeme et vere.*

390. **H. triquetrum** L. (Sp. Pl. p. 1589.); *dioicum*; *H. loreo* simillimum, sed *strictius robustius*, laete viride; folia caulina *maxime patentia, haud falcata, multo latiora*, e basi *coarctato-vaginante maxime auriculato-dilatata hastato-lanceolata subreflexa, summa stellata*, margine *basi maxime involuto superne serrato*, nervis binis *longissimis in acumen plicatum folii productis* tenuibus, cellulis *intus et dorso dentibus sparsis valde scaberrimis;* perich. *H. lorei;* theca *magis oblonga arcuata*, operculo *magis conico.*

Brid. II. p. 508. — Hdw. Fund. Musc. I. t. 7. f. 37—46. — *H. sagittaefolium* Voit. Musc. Herbipol. p. 97. — Hypnum vulgare, triangulum, maximum et pallidum. Dill. Musc. p. 293. t. 38. f. 28.

Patria. In locis praesertim sylvaticis siccioribus usque in regionem montanam, sed rarius fructificans, per totam Europam vulgare, in America sept. haud commune. — *Auctumno seriore et hyeme.*

391. **Hypnum ulicon** Tayl. (Lond. Journ. of bot. 1847. p. 337.); caulis 2—3 uncialis ascendens implexus vage ramosus, ramis brevibus parum curvatis; folia laxe subsquarrosa pallide viridia tenera subplicata, cordata acuminata, mediotenus tenuiter uninervia, apice subserrulata; perichaetia pallida, ad caulem principem oriunda sparsa; theca in ped. laevi suberecta ovata basi strumosa, operc. longirostro thecam aequante; perist. int. d. perforati, ciliis perforatis binis interpositis. †.

Patria. Monte Pichincha Andium Quitensium, Nov. 1846: Prof. W. Jameson.

Pilotricho patulo persimile appellatur.

Subsectio V. **Rigodium** Kze. Caulis *maxime vage ramosus*, plerumque valde intricatus; folia *remote disposita patentia, haud plicata.*

A *Plicaria* notis cursive impressis longinquum.

a. *Folia uninervia.*

α. Pedunculus laevis.

392. H. implexum Kze. (in schedulis); *dioicum;* cespites *latissimi depresso-procumbentes maxime implexi et duri,* e viridi lutescentes; caulis *maxime vage ramosus rigidissimus tenacissimus* crassiuscule filiformis, *ramificationibus tenerrimis elongatis vagis humore patentissimis;* folia caulina *valde squarruloso-patentia,* parvula, basi cochleariformi-concava, plus minus speluncoso-plicata, latissime cordato-ovata, breviter stricte acuminata, margine inferne late revoluto, superne crenulato, nervo lato complanato pallido ante apicem evanido, cellulis incrassate ellipticis tenuissime papillosis sublaevibus pallidis firmis, margine magis incrassatis; perich. e basi longe vaginante valde reflexo-acuminata, margine ubique tenuissime serrulato, basi involutaceo, firma, incrassate areolata; theca in ped. purpureo flexuoso brevi laevi apice subarcuato oblonga aequalis fusco-badia, operc. breviter conico acuto; perist. int. d. subflavidi hiantes angusti, ciliis 2—3 albidis tenuissimis nodosis.

Rigodium implexum Kze. Schw. in Linn. XVIII. p. 559. t. 9. — *Hypnum Neei* Mohr. Hb. inedit. fide Hampe.

Patria. Chile, monte Antuco ignivomo Chiles australis 1829: Pöppig, dein Philippi

393. H. brachypodium C. Müll.; *dioicum;* caulis repens vage ramosus *breviusculus;* rami *breviusculi* densifolii, *pinnatim dispositi,* ramulis *brevibus inferne pinnulatis, apice simplici longiusculo sciuroideo* praeditis, e viridi lutescentes; folia squarrosula, late cordato-ovato-lanceolata, tenera, *caviuscula, haud plicata,* margine parum revoluto, nervo *crasso excurrente,* cellulis ubique minute rotundatis virescentibus; perich. pallida teneriora vaginanti-lanceolata reflexo-acuminata, subnervosa, margine haud connivente, superne crenulato; theca in ped. *perbrevi* aurantiaco laevi apice arcuato horizontalis, *subgloboso-ovata turgida* aurantiaca; perist. *H. implexi.*

H. toxarion Hmp. in litt.

Patria. In locis uliginosis, praesertim gra… totius Europae, Asiae et Americae septentrionalis, … nities praeferens, rarius fertilis. — *Hyeme et ver.*

390. **H. triquetrum** L. (Sp. Pl. p. 1589.); … *H. loreo* simillimum, sed *strictius robustius*, laete vi… folia caulina *maxime patentia, haud falcata*, … *tiora*, e basi *coarctato-vaginante maxime* auricul… *dilatata hastato-lanceolata subreflexa*, *summa* … margine *basi maxime involuto superne serrato*, … binis *longissimis in acumen plicatum folii* productis … nuibus, cellulis *intus et dorso dentibus sparsis* valde … *berrimis;* perich. *H. lorei;* theca *magis oblonga* … operculo *magis conico.*

Brid. II. p. 508. — Hdw. Fund. Musc. I. t. 7. f. 37–… *H. sagittaefolium* Voit. Musc. Herbipol. p. 97. — Hypnum … triangulum, maximum et pallidum. Dill. Musc. p. 293. t. 38. …

Patria. In locis praesertim sylvaticis siccioribus … que in regionem montanam, sed rarius fructificans, … totam Europam vulgare, in America sept. haud com… ne. — *Auctumno seriore et hyeme.*

391. **Hypnum ulicon** Tayl. (Lond. Journ. of … 1847. p. 337.); caulis 2—3 uncialis ascendens imp… vage ramosus, ramis brevibus parum curvatis; folia … subsquarrosa pallide viridia tenera subplicata, … acuminata, mediotenus tenuiter uninervia, apice … rulata; perichaetia pallida, ad caulem principem … sparsa; theca in ped. laevi suberecta ovata basi … mosa, operc. longirostro thecam aequante; perist. int. … perforati, ciliis perforatis binis interpositis. †.

Patria. Monte Pichincha Andium Quitensium, … 1846: Prof. W. Jameson.

Pilotricho patulo persimile appellatur.

Subsectio V. **Rigodium** Kze. Caulis *maxime vage ra… sus*, plerumque valde intricatus; folia *remote disposita* … *haud plicata.*

A *Plicaria* notis cursive impressis longinquum.

rinato, cellulis angustissimis densis brevibus *subscariosis* virescentibus, alaribus *magis rectangularibus paucis subincrassatis;* perich. e basi anguste vaginante in acumen longiusculum reflexum attenuata, enervia, ubique denticulata et elongate pellucide reticulata; theca in ped. longiusculo recto ubique tuberculoso purpureo horizontalis, subcernua gibboso-ovalis, fusca, annulata, operc. conico longe oblique subulato rubro; perist. d. ext. longi rufescentes, int. longi angusti hiantes flavi laevissimi, ciliis 2—3 longis albis laevibus tenerrimis subappendiculatis.

Brid. II. p. 399. — Hdw. Musc. Fr. IV. p. 76. t. 29. — *H. Clarionis* Lam. et Dec. Fl. Franç. I. p. 320. — *H. atrovirens* Sw. Musc. Suec. p. 65. excl. Syn. Dill. et Dicks. — H. repens, triangularibus parvis foliis, praelongum. Dill. Musc. p. 278. t. 35. f. 15. A. C.

H. hians Hdw. Sp. Musc. p. 272. t. 70 forma robustior vix appellari potest. — Brid. II. p. 456. — *Pterigynandrum apiculatum* Brid. II. p. 195 ex specimine Hb. Bridelii unico pessimo huc revocandum est.

β. scariosum; caulis subrobustus; folia minute serrulata, e cellulis fere in membranam homogeneam conflatis composita, saepius complicato-concava. *H. Swartzii* Turn. Musc. Hib. p. 151. t. 14. — *H. praelongum δ. atrovirens* Brid. II. p. 402 ex parte. — *H. Schleicheri* Hdw. fil. in Web. et Mohr. Beitr. I. p. 128. t. 7. — Brid. II. p. 403 ex parte, non Hb.! — *H. scabrum* Koch. in Hb. Cand., in Brid. II. p. 403 memoratum! — *H. praelongum ζ. speciosum* Brid. II. p. 403 partim huc pertinet.

Patria. Per totam Europam ad terram umbrosam, ligna putrida et saxa, praecipue in graminosis. Var. *β.* zonam montosam amans. — *Primo vere.*

E statura valde variat, sed foliis hianti-patentibus subscariose areolatis, cellulis alaribus paucis subincrassatis facile discernibile, notis cursive impressis ab *H. Stokesii* toto coelo distans.

397. **H. Regnellii** Hmp. (in litteris!); *hermaphroditum! H. praelongo* simillimum; folia latius cordata, pellucida, haud virentia, minus serrata; theca in ped. *parum scabro* omnino *H. praelongi;* perist. int. ciliis vix appendiculatis *rugulosis.*

Patria. Brasilia, Minas Geraës ad Caldas: Regnell No. 359.

398. **H. Stokesii** Turn. (Musc. Hib. p. 159. t. 15. f. 2.); *dioicum; H. praelongo* simile, sed caulis validior magis prostratus, *distincte pinnatus, ramulis tenerrimis iterum irregulariter pinnatis haud distichaceo-foliosis;* folia caulina remota squarrosa, *latissime cordato-ovata, acumine reflexo longiusculo terminata,* concava, margine ad alas basilares *maxime ventricosas decurrentes laxe quadrate reticulatas pellucidas valde convexo,* ubique serrulato, nervo in acumen evanido tenui, cellulis brevibus densiusculis virentibus; ramulina *plumulose imbricata, anguste lanceolata,* basi vix impressa, grossius serrata, nervo ultra medium abrupto; perich. maxime squarrosa, multo latiora, obsoletinervia v. enervia; fructificatio omnino *H. praelongi.*

H. praelongum γ. Stokesii Brid. II. p. 401. — *H. Fulgerians* La Pyl. in Hb. Brid. — *H. rigidiusculum* Blandow in Musc. Exs. Fasc. V. No. 230! — *H. Ludwigii* Brid. in schedis. — *H. orthorhynchum* Brid. Sp. Musc. II. p. 106! — *H. praelongum η. orthorhynchum* Brid. II. p. 403. — *H. pseudo-delicatulum* Raddi in Opusc. Scientif. Di Bol. II. p. 360, fide De Notaris.

Patria. In rupibus Hiberniae excavatis infra nidos Aquilarum prope locum Lough-Bray primus legit Stokes; praeterea hic illic per totam Europam, praeprimis in regionibus septentrionalibus planitiei, ubi locis iisdem ac *H. praelongum* haud raro legitur. Ad Cap. Dissapointment Americae occidentalis ad flumen Columbia lectum nobis dedit am. Hampe. — *Hyeme.*

399. **H. reflexum** Starcke (in Web. et Mohr. Bot. Taschb. p. 306 et 476.); *monoicum;* cespites latissimi *deplanati sordide virides;* caulis longe repens, ramis *rigidiusculis* filiformibus, ramulis *brevibus teneris curvulis attenuatis laxe pinnatim dispositis;* folia caulina *dense conferta, humore erecto-patula, e basi late cordato-ovata, alis longe decurrentibus valde ventricose impressis instructâ hastato-acuminata,* subcarinata, margine infima basi convexo, sursum erecto serrulato, nervo subvalido

viridi in acumen subreflexum plus minus longum cuspidatum evanescente, cellulis parvis firmis pellucidis vel virescentibus, alaribus permultis quadratis parum majoribus pellucidis v. intus granulosis; perich. pallida appressa, e basi late vaginante profunde concavâ in acumen breve reflexiusculum producta, enervia v. obsoletinervia, subdenticulata, laxe pellucide elongate reticulata; theca in ped. mediocri rubro *ubique valde tuberculoso horizontalis, turgide globoso-ovalis brunnescens*, operc. *conico brevi;* perist. d. ext. subintegri lutei, int. flavi hiantes laeves, ciliis **2—3** longis albis valde appendiculatis.

Brid. II. p. 461. — Schw. Suppl. II. I. p. 161. t. 143. — *H. populeum* Drumm. Musc. Amer. No. 176! — *H. Grimsulanum* Schimp. in litteris! forma microcarpa, laete viridissima et minus rigida est, ab auctore alpe Grimsel prope Hospitium et a Sendtner in alpibus Algovicis Bavariae observata! — *H. tenax* Drumm. Musc. Amer. No. 225!

Patria. Per zonam subalpinam et alpinam totius Europae, ad lapides, terram et radices arborum. Ad pedem montis Schneeberg Sudetorum detexit Seliger. In terris arcticis Lapponiae nondum observatum. In Canada ad lapides prope Lake Superior et rupes flum. Portage River: Drummond. — *Auctumno.*

Caracteribus designatis facile discernendum. Variat foliorum longitudine atque areolatione plus minus pellucida laxa, pedunculo scabro et theca turgescente. Formis minoribus *H. umbrati* haud dissimile, *H. Stokesii* proximum.

400. **H. laxifolium** Schw. (Suppl. II. 2. p. 159. t. 143.); *dioicum?* caulis longe repens subvalidus prostratus, radicans, rigidus; distincte pinnatus, ramis breviusculis flexuosis simplicibus vel longioribus iterum pinnulate ramulosis, attenuatis, virescentibus; folia caulina laxe imbricata, subsquarrulosa, e basi longius decurrente deltoideo-ovata breviter acuminata, ramea ovata, *omnia acumine subobliquo nunquam reflexo*, concava, serrata vel denticulata, nervo in acumen evanido obscuro, cellulis minutissimis; perich. oblongo-vaginantia, *erecta*, longe

flexuose acuminata, *apice summo subdenticulata*, enervia; theca in ped. *brevi* tuberculoso rubro horizontalis *globoso-ovata* badia, operc. *conico breviter oblique acuminato*; perist. *H. praelongi*, ciliis internis brevioribus. †.

Isothecium laxifolium Brid. II. p. 359. — *Leskea laxifolia* Hook. Musc. Exot. t. 30.

Patria. In plaga occidentali Americae borealis in terra: Menzies 1791.

Ab *H. Stokesii* proximo caracteribus declaratis refugit.

401. **H. crispifolium** Hook. (Musc. Exot. t. 31.); *dioicum*; caulis longe repens prostratus maxime vage ramosus; rami breviusculi simplices *validiusculi* vel elongati iterum brevissime ramulosi, omnes pinnatim divisi attenuati *obtusiusculi sordide lutescentes*; folia *dense imbricata*, humore erecto-patula, luteo-viridia opaca, *subfalcato-secunda*; caulina latiuscule deltoideo-ovata, in acumen *longum crispatum* attenuata, *subundulato-rugosa*, *ubique irregulariter erose denticulata*, *flaccida mollia crassiuscula*, basi longe decurrentia, ubique rotundati minute areolata, nervo longo valido; ramea basi magis lanceolata, angustiora; perich. erecta, e basi breviter ovata *longissime* acuminata obsoletinervia *serrulata*; theca in ped. brevi purpureo tuberculoso horizontalis oblongo-ovalis, badia; perist. *H. praelongi*. †.

Schw Suppl. III. II. 1. t. 262. — *Isothecium crispifolium* Brid. II. p. 360.

Patria. In plaga occidentali Americae borealis: Menzies 1791.

Ab *H. laxifolio* caracteribus cursive impressis, ab *H. flagellari* jam pedunculo tuberculoso differt.

402. **H. Oreganum** Sulliv. (Mem. of the Americ. Acad. of Arts and Sc. IV. 1849. p. 172.); *dioicum*; caulis prostratus parce ramosus, *haud compressus*, *rigidior*, ramis *dense pinnatis*; folia e basi late cordatâ ovata *longe acuminata* serrulata *magis striata* nitidula tenuissime areolata, nervo ante apicem dissoluto; perich. *nervosa*; theca

n ped. muriculato oblonga cernua annulata, operc. conico onge rostrato. †.

Patria. Oregon Americae septentrionalis, inter Puget Sound et Columbia flumen.

H. crispifolium ejusdem regionis foliis opacis subpaillosis minute rotundate areolatis primo momento fide uctoris recedit. Ab *H. praelongo* peraffini statura laiore et caracteribus caeteris explicatis distare dicitur.

An huc pertinentia?

403. **H. cordatum** Harv. (in Hook. Ic. Pl. Rar. t. 4. fig. 9.): caulis ascendens vage pinnatus; folia cordato-vata brevissime obtuse acuminata, serrata, distantia, recto-patentia, margine basi patula, nervo ante apicem vanescente; theca in ped. tuberculoso gracili horizontas minute ovalis. †.

Cum diagnosi pauperrima in Lond. Journ. of bot. 1840. p. 20.

Patria. Nepal: Wallich.

H. praelongo proximum videtur.

404. **H. oxyrrhynchum** Dz. et Molkb. (Ann. sc. at. 1844. p. 308.); caulis repens intricato-ramosus, ramis simplicibus procumbentibus, folia laxe disposita ereo-patula, subcordato-lanceolata acuminata subserrata, nervo ad medium evanido, nitentia; perich. erecta pice recurva oblonga, in cuspidem filiformem subserrutam contracta, enervia; theca in ped. apice asperulo clinata oblonga incurva; operc. conico-acuminato obquo. †.

Patria. Java.

b. *Folia binervia vel enervia.*

405. **H. Schlosseri** Sendtner (in litteris); *H. imlexo* simillimum, sed folia remotius squarrulosa, *nitidula viridiora*, e basi *brevissime coarctata amplexicauli latisme truncata profunde et perfecte cochleariformi-ovata* revissime acuminata, *haud plicata, tenera viridia, laeissima*, margine *ubique erecto integerrimo*, nervis *binis*

vix conspicuis brevibus obsoletissimis, cellulis brevibus ellipticis.

Patria. Nova Hollandia. Sendtner communicavit.

406. **H. tenue** C. Müll.; *dioicum*; cespites plani longe prostrati rigidi intertexti lutescentes; caulis longe repens tenuis flexuosus, ramis humilibus tenuibus in ramulos brevissimos tenuissimos remotiusculos varie incurvos divisis, ascendentibus pinnatim dispositis vage ramosissimus, laevis; folia caulina conferta, humore et siccitate squarruloso-erecta, parvula, *suborbicularia vel cordato-subrotunda*, breviter apiculata, concava, vix plicata, margine inferne reflexo, denticulato, superne serrulato, nervis binis brevissimis obsoletissimis vix conspicuis, cellulis minutis densis scariosis lutescentibus, alaribus ad alas basilares convexas parvis, sed multo laxioribus pellucidis quadratis teneris; perich. appressa, e basi vaginante in acumen subloriforme reflexum summo apice denticulatum attenuata, enervia, ubique laxissime tenerrime pellucide elongate reticulata, striata vel undulata; theca in ped. longiusculo rigido purpureo *laevi erecta* oblonga, oper. convexo *rostrato incurvo* breviori; perist. d. ext. breves lutescentes fragiles obsoleti anguste lanceolati, int. *rudimentarii*, ciliis *rudimentariis latis singulis.*

Leptohymenium tenue Schw. Suppl. III. I. 2. t. 246. C. — *Pterigynandrum tenue* Brid. II. p. 187. — *Pterogonium tenue* Schw. Suppl. II. I. p. 30. t. 108! — *Neckera tenuis* Hook. Trans. of Linn. Soc. IX. p. 315. t. 27. f. 3.

Patria. Nepal: Buchanan.

H. reflexo simile, sed caracteribus supra laudatis paucis jam distinctissimum et pulcherrima species.

407. **H. discriminatum** Mont. (in litt.); *dioicum*; procumbens robustum vage ramosum, ramis *crassiusculis squarroso-turgidis*, flexuosis longiusculis nitenti-lutescentibus; folia caulina *maxime squarroso-patula, e basi angustiore latissime rotundato-ovata obtusa, brevissime acuminata*, caviuscula, margine erecto, superne serrulato, nervis binis brevibus tenuibus pallidis, cellulis pallidis

crassate angustis ellipticis, alaribus paucissimis vix ul- minutis laxioribus pellucidis; theca in ped. longiusculo asso laevi aurantiaco subhorizontalis *magna turgide alis subcernua* fuscidula, late annulata, operc. conico tuso; perist. robustissimum *H. macrocarpi.*

Patria. In montibus Neelgheriensibus: Perrottet.

Ab *H. flagellari et macrocarpo* proximis statura ro- usta et notis cursive impressis primo visu differt.

408. **H. serratum** P. B. (Prodr. p. 70.); caulis *ar- ato-decumbens* remotifolius, vage ramosus radicans, ra- is brevibus parce divisis laxifoliis pallescentibus; folia ulina patentissima reflexiuscula, ramea patula, omnia guste ovato-lanceolata, concava, margine infima basi flexo, ubique serrulato, nervis binis inaequalibus palli- tenuibus, cellulis angustissimis *elongatis molluscis ve- i striate areolata*, pallide viridia, alaribus ad alas ba- ares vix impressas vix ullis minutissime quadratis; pe- h. longiora angusta subcapillacea subserrata enervia; eca in ped. subtriunciali flexuoso subcylindrica inae- alis.

Brid. II. p. 504.

Patria. Insula Bourbonis, ad terram: Bory St. incent.

Sterile tantum in Hb. Bridelii observavimus.

409. **H. oxypoma** Schw. (Suppl. III. II. 1. t. 259.); *onoicum;* caulis repens vage ramosus, ramis in ramulos eves pinnatim divisis, lutescentibus squarrulose foliosis; lia sparsa, densiuscule conferta, patula, *cordato-ovata rvula, superiora acuminata,* denticulata, concava, valde llucida, pallide viridia, enervia (?), e cellulis oblongis perne angustioribus areolata; perich. squarrulosa, in umen longiusculum producta; theca in ped. mediocri evi, apice parum arcuato horizontalis oblonga, junior te- s parum inaequalis, luteo-fusca; operc. *conico recte uto* concolori; perist. d. ext. ferruginei, int. flavi solidi, liis *singulis* longis articulatis pallidioribus. †.

Patria. Brasilia: Pohl.

H. elegantulo observante auctore affine, caracteribus paucis laudatis refugientibus diversum videtur.

410. **H. Jamesoni** Tayl. (Lond. Journ. of bot. 1846. p. 63.); caulis tripinnatus procumbens, ramis *tenuibus*; folia remotiuscula patentia, caulina cordata longius acuminata subintegerrima, ramea ovata acuta denticulata, omnia *enervia* (?) substriata; theca in ped. *elongato laevi* apice deflexo in collum thecae abeunte late ovata *pendula*, operc. conico-rostellato; perist. d. ext. elongato-acuminati, int. perforati, ciliis 2—3 filiformibus brevioribus interpositis. †.

H. asperum Hook. Mst. fide Wilson l. c. p. 453.

Patria. In sylvis occidentalibus montis Pichinchae Andium Quitensium: W. Jameson 1845.

Ex animadv. auctoris ab *H. praelongo* affini notis cursive impressis distare dicitur.

Incertae sedis.

411. **H. lepturum** Tayl. (Lond. Journ. of bot. 1846. p. 64.); caulis cespitosus procumbens, ramosus, ramis brevibus subincurvis lucidis pallidissime subargenteo-viridibus, gracillimis; folia arcte imbricata subsecunda erecta lanceolata acuminata, ad caulis apicem longiora subpilifera, subserrulata v. integerrima, basi laxe reticulata, margine basi vix reflexa, mediotenus uninervia. †.

Patria. Nova Hollandia, ad Swan River: James Drummond.

Hypno reflexo auctor subaffine descripsit.

Subsectio VI. **Plicaria.** Caulis pinnatim vel vage dichotome ramosus, *decumbens*; folia *distincte plicata*, rarius subsecunda.

A. *Caulis magis regulariter pinnatus.*

Folia uninervia.

412. **H. Blandowii** Web. et Mohr. (Bot. Taschb. p. 332.); *monoicum; H. abietino* simillimum, sed caulis *mollis, haud rigidus fragilis*, foliis densissime imbricatis

squamoso-foliosus, pallide ferrugineus *subsericeus* superne viridis, filis *elongatis tenuissimis laevibus remote articulatis maxime ramosis subtomentose intertextis* obtectus, *ditissime fertilis;* folia caulina subsquarrulose imbricata, e basi *longe decurrente angusta complicatâ latissime ovato-acuminata, profunde complicato-plicata*, margine hic illic valde revoluto, papillis scabro, *basi saepe confervoideo-ciliato*, nervo *viridi* ante apicem evanido, cellulis brevibus *pellucidis anguste laxis mollibus, dorso remote papillosis, basi multo pellucidioribus laxioribus;* perich. omnino pallida, late lanceolato-acuminata, elongate anguste pellucide reticulata; theca in ped. elongato rufo laevi *horizontalis* arcuato-cylindrica pallida, annulata, operc. conico; perist. robusti d. int. latiusculi vix hiantes flavidi, ciliis binis albis.

Schw. Suppl. II. I. p. 158. t. 142. — *H. Stereodon Blandowii* Brid. II. p. 577. — *H. affine* Crome Nachlief. 2 n. 20., non Hoffm., quod ad *H. filicinum* pertinet. — *H. laricinum* Wils. in Hook. et Arn. The Bot. of Capit. Beechey's Voyage p. 120! e Kamtschatka relatum et in Hook. Brit. Fl. ed. II. Part. I. p. 87; c. ic. in Engl. Bot. Suppl. t. 2760.

Patria. In pratis profunde uliginosis Germaniae septentrionalis planae, ubi pr. Waren Megapolitanum oppidum detexit Blandow, Finlandiae, Sueciae, Norvegiae, Kamtschatkae et Americae septentrionalis, ubi Drummond legit. In rupibus madidis Britanniae pr. Tunbridge dom. Woods ex Hookero legisse dicitur. — *Majo, Junio.*

Pulcherrima species, cum alia nunquam confundenda!

413. **H. paludosum** Sulliv. (Musc. Allegh. No. 7!); *dioicum;* cespites erecti elati molles viridissimi; caulis erectus flexuosus *subtenuis* densifolius, filis maxime ramosis elongatis tenuissimis *multo paucioribus* valde articulatis obtectus, ramis multo tenerioribus brevibus simplicibus attenuatis flexuosis laxe pinnatus; folia caulina laxe conferta, late ovato-lanceolata in acumen latum strictiusculum attenuata, *basi haud decurrentia*, profunde concava, rugulose plicata, *sed magis regularia*, subinte-

gerrima, *margine e basi usque ad summum apicem maxime revoluto, sublaevissimo*, nervo canaliculato in acumen evanido longo viridi, cellulis brevibus angustissimis *incrassatis sublaevibus* virentibus, alaribus parvis quadratis diaphanis vel badiis paucis; perich. vaginantia, profunde plicata, longius lanceolato-acuminata, nervo in acumen evanido, cellulis basi elongatis pellucidis laxiusculis; theca in ped. elongato aurantiaco horizontalis, cylindracea arcuata, annulata, operc. conico brevissimo; perist. d. ext. robusti rubiginosi, int. flavi, vix hiantes, ciliis 2 – 3 albis capillaribus.

Patria. America sept., ubi Sullivant 1850 in editioribus Ohionis septentrionalibus paludibus, Cranberry Marshes dictis fertile legit et nobis humanissime communicavit.

H. Blandowii habitu simile, sed caracteribus laudatis toto coelo diversum; ab *H. Oakesii* jam caule pinnato foliisque integris distat.

414. **H. Pyrenaicum** Spruce (Musc. Pyren. n. 4); *dioicum;* caulis procumbens *crassus*, filis tenuibus geniculato-ramosis obtectus, ramis *crassiusculis dense foliosis simpliciter pinnatus*, lutescens; folia caulina patentia, *e basi angusta late ovata, longius et late acuminata*, concava, valde plicata, margine *ad apicem usque fere revoluto* superne valde acute serrato, *nervo unico ultra medium producto rarissime superne bifurco* canaliculato, cellulis *H. umbrati.*

Cum descriptione in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 6. t. 12.

Patria. In summa zona sylvatica montis Crabioules Pyrenäorum, saxa caulibus implexis dense obtegens: Spruce. In alpibus Helveticis et Tirolensibus: W. P. Sch.

Ab *H. umbrato* caracteribus designatis facillime distinguitur.

Folia binervia.

415. **H. splendens** Hdw. (Sp. Musc. p. 262. t. 67.); *dioicum;* cespites latissimi laxi prostrati *sordide lutescentes sericei;* caulis assurgens crassiusculus, ramis rigidis *gracillimis eleganter breviter pinnatis, apice longius producto subcuspidato tenerrimo flexuoso praeditis, densissime approximatis veluti verticillatim dispositis recurvis* bipinnatus, *apice flagellis geniculate ascendentibus innovans,* filis *tenerrime filiformibus parce divisis* curvatis obtectus; folia caulina erecto-patula *late ovata,* breviter acuminata, plicatula, caviuscula, scarioso-membranacea, viridissima margine *erecto, summo apice crenulato,* nervis binis brevibus, cellulis brevibus *conflatis, basi una cum alaribus badiis incrassatis;* perichaetia longe exserta turgida, foliis *appressis* pallidis late lanceolatis longe acuminatis *integerrimis* elongate angustissime basi laxe flavide reticulatis *binervibus;* theca *H. umbrati,* perist. interno valde hiante.

Brid. II. p. 435. — *H. parietinum* L. Syst. Pl. p. 1590. — *H. proliferum* L. Mant. p. 507 ex parte. — *H. pinnatum* Lamk. Enc. Meth. Bot. III. p. 168. — H. filicinum, Tamarisci foliis majoribus splendentibus. Dill. Musc. p. 274. t. 35. f. 13.

Patria. In umbrosis humidiusculis per totam Europam, Americam septentrionalem et Asiam septentrionalem, vulgatissimum, sed rarius fertile. — *Vere.*

Ob vestigia laudata ab *H. umbrato* toto coelo distat.

416. **H. umbratum** Ehrh. (Crypt. Exs. n. 66.); *monoicum;* caulis procumbens vage ramosus, *filis celludosis rigidis maxime spinoso-ramulosis obtectus,* assurgens, ramis *rigidissimis* brevibus irregulariter bipinnatus; folia caulina squarrosulo-patula, late cordato-ovata breviter acuminata, caviuscula, *plicata,* margine *basi paulisper revoluto,* ubique remote irregulariter acute serrulato, nervis binis brevibus *viridibus,* cellulis *viridibus,* alaribus pluribus *badiis;* perich. squarroso-reflexa, late lanceolato-acuminata, superne serrulata, margine erecto, nervis nullis, cellulis basi laxis badiis; theca in ped. plus

minus longo arcuato-flexuoso purpureo laevi crasso horizontalis *maxime turgide subgloboso-ovata brevis* subcernua, badia, annulata, operc. conico acuto brevi; perist. *H. macrocarpi.*

Brid. II. p. 433. — Hdw. Sp. Musc. p. 263. t. 67. — *H. proliferum β. umbratum* Wahlenb. Fl. Lapp. p. 373.

Patria. Ad saxa, terram et truncos putridos arborum sylvarum altissimarum umbrosarum zonae montosae editioris et alpinae inferioris Germaniae, ubi in Hercynia primus legit Ehrhart, Gothiae et Sueciae, Pyrenaeorum et in America septentrionali. Rarum. — *Vere.*

Ab *H. macrocarpo* simili caracteribus laudatis facillime distinguitur. *H. splendenti* haud dissimile, sed statura robusta horride rigida primo adspectu jam recedit.

B. *Caulis irregulariter dichotome ramosus.*

a. *Folia binervia.*

417. H. ericoides C. Müll.; *dioicum;* caulis *longissimus, ramis elongatis simplicibus v. parcissime breviter dichotomis crassis obtusissimis stramineo-nitidis densifoliis pluries divisus;* folia caulina *dense conferta, apice recurvo subsquarrosa, latiuscule ovato-acuminata, acumine brevi,* pluries plicata, concava, *integerrima,* nervis binis brevissimis obsoletissimis v. nullis, conflate areolata scariosa; perichaetia *longe cylindrica,* foliis longe convoluto-acuminatis estriatis; theca in ped. *brevi* gracili laevi rubro *erecta, cylindrico-oblonga, octies sulcata,* brunnea, operc. convexo *longissime aciculari rectiusculo;* perist. d. robustiusculi badii, fissura obscura notati, int. angusti subflavi solidi, ciliis rudimentariis? †.

Leskea ericoides Hook. Musc. Exot. t. 28. — Schw. Suppl. II. I. p. 152. t. 140. — Brid. II. p. 293.

Patria. Dusky-Bay Novae Seelandiae: Menzies 1791.

Signis datis facile cognoscendum. An caulis decumbens vel pendulus, latet; ex *H. aciculari* analogo probabiliter decumbens erit. *Neckerae flexili* habitu ex iconibus haud dissimile est.

418. **H. ptychocarpon** Schw. (Linn. XVIII. 1844. p. 561. t. 10.); *dioicum;* caulis *longissimus decumbens gracilis* flexuosus foliosus, ramis *remotissimis patentissimis brevibus simplicibus v. longioribus et iterum remote patenti-divisis, uti caulis siccitate ob folia laxe conferta compressis, humore remotifoliis,* lutescentibus *perangustis;* folia caulina madore patentia, *late rotundate ovata breviter acuminata, subcochleariformi-concava, pluries regulariter plicata,* margine late convexo subintegro, nervis binis tenuibus obsoletis v. nullis, cellulis scariosis pallidissimis conflatis, basi fuscis, alaribus ad alas convexas vix ullis incrassatis intense fuscis; perichaetia *angustissime cylindrica exserta fusca,* foliis subconvolutaceis angustis, apicibus subreflexis, enervibus, conflate areolatis, aureo-coloratis, integerrimis; theca in ped. mediocri gracili rubro laevi subhorizontalis, *anguste cylindrico-oblonga* 8-*sulcata,* fusca; perist. d. ext. breviusculi, fissura diaphana notati, int. subperforati pallidi, ciliis binis aequilongis.

Leskea? *Gayana* Mont. Ann. sc. nat. 1845. 4. p. 95. — Hist. de Chile, auct. C. Gay, Bot. Crypt. t. 3. f. 4. — *Hypnum Gayanum* Mont. in litteris.

Patria. Chile australis, ad corticem arborum, Valdivia et Colenagna: Cuming, Philippi, C. Gay.

Notaculis illis variis expositis rite discernendum, e sectione *H. aciculari* affinissimum.

419. **H. brevirostrum** Ehrh. (Pl. Exs. No. 85.); *dioicum;* caulis longissime repens squarrosifolius; divisiones permultae decumbentes v. assurgentes rigidae fragiles, ramis *gracilioribus* incurvis squarrosifoliis attenuatis apice gemmaceis vage subdendroideo-ramosae, apice *haud stellatim foliosae,* lutescentes, *in axillis foliorum radiculis brevissimis acutissimis tubulosis pallidis dense obtectae;* folia caulina laxe conferta erecta, humore valde patentia, e basi coarctata majuscule auriculatâ late ovata, *apice utrinque sinuato, in sinu acumine lato breviusculo terminata, haud reflexa,* ruguloso-plicata, cavitate pro-

funda ante acumen canaliculatum plerumque abrupta, margine ubique erecto et argute serrulato, hic illic undulato, nervis binis tenuibus divergentibus dimidiatis, cellulis angustissimis densissimis scariosis subconflatis *laevissimis* lutescentibus, basi fuscis, alaribus ad alas basilares semel circinnato-involutas paucis incrassatis intense fuscis; perich. e basi latissime vaginante elongate laxe et incrassate reticulata fusca obsoletinervi in acumen longum valde reflexum scariose areolatum attenuata, denticulata; theca in ped. *breviusculo* rubro laevi flexuoso *inclinata*, e collo brevi oblonga aurantiaca nitida, sicca striata, late annulata, operc. *conico obtuso apiculato brevi obliquo;* perist. d. ext. robusti lutei, apice nodose serrulati, int. pallidissimi hiantes laeves, ciliis tenerrimis binis nodosis brevioribus.

Brid. II. p. 506. — Schw. Suppl. III. 1. 1. t. 225. — *H. triquetrum* var. Web. et Mohr. Bot. Taschb. p. 354. — *H. erectum* Raddi, fide De Notaris.

H. interruptum Brid. Sp. Musc. II. p. 194 v. *H. brevirostrum* β. *interruptum* ej. II. p. 508 ex insula Bourbonis a Commerson relatum quoad specimina Hb. Bridelii sterilia huc pertinet; an fructus vero adhuc ignotus diversus, latet.

Patria. Praeter Scandinaviam Norvegicam et Lapponicam per totam Europam in umbrosis sylvaticis, e planitie usque in zonam subalpinam, ad terram atque radices arborum, haud rarum, sed parcius fertile. In Hercynia detexit Ehrhart oculatissimus. — *Vere.*

Ab *H. triquetro* proximo caracteribus datis toto coelo differt.

b. *Folia uninervia.*

420. **H. striatum** Schreb. (Spic. Fl. Lips. 1771! p. 91.); *dioicum; H. brevirostro* simillimum, sed caulis *filis radiculaeformibus destitutus;* folia siccitate quoque magis squarrosa, e basi *latissime cordato-ovata, alis impressis valde convexis praeditâ late lanceolato-acuminata, haud sinuata,* ruguloso-plicata, caviuscula, margine convexo serrulato, nervo *unico* canaliculato ultramedio, cellulis minus conflatis *ubique* pallidis, alaribus quadratis *pellucl-*

dis; perich. *ubique pellucide* laxe reticulata, obsoletinervia; theca in ped. laevi *elongato longiuscule cylindraceo-oblonga arcuata,* late annulata, operc. conico *longissime oblique rostrato;* perist. *H. brevirostri,* internum ciliis 2—3 subrugulosis.

Hdw. Musc. Fr. IV. p. 32. t. 13. — *H. longirostrum* Ehrh. Pl. Exs. 1787! No. 75. — *H. unguiculatum* La Tour. Chlor. Lugd. 33 et Schleich. in schedis. — *H. adianthum* Neck. Meth. Musc. p. 181. — *H. elasticum* Brid. Sp. Musc. II. n. 256. — *H. rutabulum β. cuspidatum* Web. Spicil. Fl. Gött. p. 92. — H. vulgare, dentatum, operculis cuspidatis. Dill. Musc. p. 297. t. 38. f. 30. B.

Patria. Per totam Europam, extra hyperboream, in sylvaticis umbrosis ad terram arborumque radices, e planitie usque ad zonam montosam. — *Primo vere.*

421. **H. Oakesii** Sulliv. (in Gray. Manual of Bot. p. 673.); *dioicum;* decumbens flexile viridi-lutescens nitens laxe cespitosum; caulis prostratus, ramis remotis longiusculis iterum pinnatis, v. simplicibus, v. parum divisis, flexuosis *patentissimis strictiusculis* compressiusculis attenuatis *pinnatus,* filis maxime ramosissimis radiculaeformibus obtectus; folia caulina *erecto-patentia* laxe imbricata, *late ovata longius acuminata,* concava, margine reflexo, supra basin *inaequaliter ciliato-dentata,* plus minus plicato-rugulosa, *nervo unico ad medium evanido,* cellulis angustissimis scariosis linearibus, basi fuscis, alaribus vix ullis fuscis; perich. numerosa squarroso-reflexa, vaginantia enervia, superiora longe capillari-acuminata, ad apicem tantum denticulata; theca in ped. *elongato* laevi tenui, *apice valde arcuato ovata, gibboso-inaequalis, ventricosa, valde pachydermis, deorsum spectans,* vix annulata, operc. conico brevi-rostellato; perist. d. ext. anguste lanceolati dense articulati, int. solidi, ciliolis binis capillaribus nodosis interjectis.

Cum ic. in Mem. of the Americ. Acad. of Arts and Sc. Vol. IV. New. Series 1849. p. 173. t. 5.

Patria. America septentrionalis, ad pedem tract. White Mountains Novae Angliae: Oakes beatus legit.

H. brevirostro Ehrh. proximum, sed notis distinctius expositis differt; ex caule ubique filis ramosissimis obtecto *H. umbrato* affine. Pulchra species.

422. **H. filescens** Brid. (Sp. Musc. II. p. 170.); *dioicum; H. striato* simillimum, sed minus; foliorum *minorum, margine dense crenulatorum*, cellulae *maxime conflatae* lutescentes et alares *minutissime quadratae incrassatae, intus granulosae;* theca in ped. *breviore breviter oblonga, haud arcuata*, annulata, operc. conico *breviter* oblique rostrato; perist. *H. striati.*

H. meridionale Schimp. in litteris! — *H. striatulum* Spruce in Musc. Pyr. 12. et Ann. and. Mag. of Nat. Hist. 1849. M. Pyr. No. 79! — *H. striatum var. Durieui* Mont. in Coll. Asturiensi. — *H. Hildenbrandii* Garov. fide Sendtneri, cujus spec. quoque observare nobis licuit. — *H. praelongum ε. filescens* Brid. II. p. 402! — *H. longirostrum β. Italicum* Brid. Hb. vel *H. Italicum* Brid. ms.! — *H. strigosum var. speciosum* Brid. Hb.! — *H. Stereodon muralis δ. subcirrhosus* Brid. II. p. 588; *H. brachycladon* Brid. in schedis.

Patria. Italia, circa Romam terrae arcte adhaerens implexum et in insula Ischia ad rupes in tractu vulcanico l'Arso dicto primus legit Bridel 1806; Istria, in fauce a Porto Pesacco sursum versus Pontiera exeunte: Sendtner 19. Majo 1843 c. fruct. deoperculatis; Hispania, locis non designatis: Requien; Gallia in vicinia Vallis Clausae (Vaucluse): W. P. Sch. Majo 1847; in Pyrenaeis occ. et centr. in saxis calcareis quibus arcte adnascitur: Spruce, in Pyrenaeis Asturiacis: Durieu; fide *Sprucei* quoque in Angliae et Hiberniae austrinis: Wilson, Thwaites, Mitten. — *Ad auctumni finem.*

423. **H. Neelgherlense** C. Müll; caulis prostratus elongatus apice attenuatus *rigidiusculus subcrassus*, ramis breviusculis v. longioribus fasciculatis assurgentibus, siccitate apice incurvis *crassioribus* lutescentibus pallidis, *haud sericeis;* folia caulina sicca subsecunda, madore erecto-patentia, *haud plumose imbricata*, late ovato-lanceolata longiuscule et *latiuscule* acuminata stricta, *multo robustiora*, concava, *laeviter* plicata, margine basi revoluto denticulato, *superne serrulato*, nervo canalicu-

lato viridi *longe infra apicem evanido*, cellulis brevibus densissimis *scariosis*, alaribus ad basin parum impressam minutis quadratis firmis diaphanis paucis; perich. squarrosa, multo latius vaginantia, longe subpiliformi-acuminata erecta *enervia estriata, apice serrulata*, pallidissima, basi laxe reticulata; theca in ped. valido recto longiusculo rubro *laevi* erecta, cylindraceo-oblonga, submicrostoma, *haud cernua;* perist. internum ciliis *binis* brevioribus.

Isothecium Nilgheriense Mont. Ann. d. sc. nat. 1842. p. 246.

Patria. Ad rupes montium Neelgheriensium Indiae orientalis: Perrottet.

Peristomium examinare nobis haud licuit. Ab *H. sericeo* affini notis cursive impressis longe distat. Ab *H. Buchanani* haud dissimili foliis scariosis primo momento separatur.

424. **H. Bonplandii** C. Müll.; caulis primarius vage repens, secundariis creberrimis ascendentibus crassis densifoliis robustis, breviter ramulosis, sordide lutescentibus, subsericeis, apice subincurvis, *rigidis humilioribus;* folia densissime imbricata subsecunda, humore parum patula, rigida latissime ovata lanceolato-acuminata, *semel torta, leviter plicata*, concava, margine *basi infima tantum reflexo parum impresso*, cellulis alaribus quadratis *parvulis* pellucidis *firmis* praedito, *ubique denticulato vel apice serrulato*, nervo latiusculo viridi ultra medium evanido canaliculato, cellulis oblongis angustis *incrassatis scariosis lutescentibus;* perich. late vaginantia *sensim longe et tenuiter acuminata reflexa* enervia, basi laxe longe reticulata, *apice denticulata;* theca in ped. longiusculo flexuoso tortili rubro laevi *erecta cylindraceo-oblonga, microstoma*, operc. *longe subulato obliquo;* perist. ext. d. rufescentes, int. flavi, ciliis singulis rudimentariis interjectis.

Leskea Bonplandii Hook. in Kunth. Synops. Pl. Aeq. I. p. 61. — Brid. II. p. 318. — Schw. Suppl. IV. t. 321. — *Hookeria leskeoides* Hook. Musc. Exot. t. 55.

Patria. Peru, in sylvis Cinchonarum prope Loxam, reg. temperata, elev. 1080 hexapodum: Humboldt et Bonpland.

Ab *H. plicato* simili notis cursive impressis toto coelo refugit.

425. **H. euchloron** Bruch (in Hb. Hampeano!); *H. Bonplandii* simillimum, sed rami *magis flexuosi distinctius homomallophylli chlorophyllosi,* inferne ochracei; folia caulina *magis plicata strictissima;* perich. *strictissima nervosa;* theca in ped. parum breviore *subinclinata macrostoma* brevius cylindraceo-oblonga, *basi brevicolla,* operc. longe subulato obliquo; perist. d. int. in membrana alta albida tenera *valde hiantes,* ciliis *binis longiusculis* interpositis.

Patria. Montes Caucasici, prov. Abasia, in ligno putrido; Th. Döllinger 1836 legit.

426. **H. Wallichii** Hook. (in Schw. Suppl. III. I. 1. t. 219, non Bridel!); *dioicum;* caulis longe prostratus turgidus densifolius lutescens, ramis distantibus similibus turgidis brevibus simplicibus subincurvatis vage ramosus, rigidus; folia caulina ad caulis basin minuta remote squarrulosa, apicem versus sensim densius imbricata, *siccitate crispate subsquarrosa,* humore laxe patentissima, majuscula, late *ovato-lanceolata loriformi-acuminata, longitudinaliter pluries complicato-concava,* nervo flexuoso pallescente canaliculato ad apicem usque fere producto, margine erecto, inferne denticulato, ad acumen rugulosum erose serrulato, cellulis *basi brevibus angustis densis laevibus, sursum sensim rotundis valde incrassatis scariosis tenuiter papillosis,* alaribus ad alas planas paucissimis minute quadratis diaphanis; perich. e basi vaginante laxissime pellucide reticulatâ *in acumen longissimum angustissimum loriforme tortum* attenuata, valde obsoletinervia veluti enervia, margine hic illic undulato subintegerrimo; theca in ped. elongato rubro laevi valido flexuoso subinclinata, longiuscule cylindrico-oblonga, sub-

cernua badia, operc. conico; perist. robusti d. int. flavi lati solidi, ciliis binis longis articulatis pallidis.

Patria. Nepal Indiae: Wallich.

Habitu *Neckerae crispatulae* simile, caracteribus supra explicatis facile cognoscendum.

Non satis nota.

427. **H. fimbriatum** Hartm. (Skand. Fl. 5 Ed. p. 330.); caulis triuncialis, ramis raris et inaequalibus irregulariter pinnulatus, laete viridis, ramulis acutatis; folia caulina ovata breviter apiculata, concava, striatula, a medio serrata, serraturis inaequalibus angustis longioribusque, nervo ad vel supra medium protracto, interdum gemello. †.

Patria. In sylvis rarissimum, Helsingia in truncis Alnorum prope Hemstanäs, paroeciae Skog: R. Hartmann.

Ex animadv. auctoris inter *H. striatum et brevirostrum*, huic proximum, sed foliis minus divaricatis, apice breviore nervoque distincto praeditis, ob serraturas subulatas quasi fimbriatis diversum. Non adhuc fructificans lectum. Species, si revera propria, ob *H. fimbriatum* nob. nomine novo ornanda; an *H. Oakesii* Sulliv.?

Subsectio VII. **Julia.** Caulis ascendens, foliis *cochleariformibus dense appressis, nunquam secundis, perfecte teres*, filiformis.

428. **H. julaceum** Villars (Pl. Dauph. III. p. 909. 1786.); *dioicum;* caulis *erectus longiusculus filiformis tenuis aequalis julaceus fragilis, inferne compactus, superne ramis liberis inordinate dispositis julaceis paucis, e viridi albescentibus;* folia caulina dense imbricata, *profunde ventricose cochleariformi-ovata, obtusa et in apiculum plus minus distinctum producta, margine erecto* subcrenulato, *nervo gemello brevi, latiusculo,* cellulis incrassatis rotundatis diaphanis scariosis dorso subpapillosis; perich. subvaginanti-lanceolata longiuscule acuminata, ad basin acuminis emarginato-dentata, obsoletinervia, e

cellulis laxis angustis badiis laevibus reticulata; in ped. longiusculo rubro laevi flexuoso subinclinata *urceolata*, exannulata, *basi brevicolla*, badia operc. *convexo acuto brevi*; perist. minuti d. ext. lati laeves lutescentes trabeculati, int. aequilongi brana longa tenuiter reticulata albida angustissim albidi, ciliis singulis parum brevioribus.

Schw. Suppl. I. II. p. 216. t. 89. — *Isothecium julace* II. p. 365. — *Hypnum moniliforme* Wahlenb. Fl. Lapp. 376. t. 24. — *Leskea julacea* Schw. in Schultes Reise Glockner II. p. 363. 1804.

Pterogonium rotundifolium Engl. Bot. t. 2525. — *Pter drum tenerrimum* Brid. II. p. 196! — *Pt. fragile* Schl. n. 6.

Isothecium apiculatum Hüb. Musc. p. 598, forma gra liis magis apiculatis! — *H. apiculatum* Hartm. Skand. Fl. p. 326.

Patria. In alpibus totius Europae, et A septentrionalis, haud rarum, sed rarissime fru In monte Ceuse pr. Gap Delphinatus anno 1784 Villars. — *Junio et Julio.*

Planta tenella notis laudatis facillime cogno solitaria.

429. **H. vagum** Hsch. (in Sieber: Musc. No. 23.); *dioicum*; caulis assurgens *crassiusculus vage ramosus*; folia caulina *majora* late ovata *acuminata, haud apiculata*, subenervia; perich. *ginantia pallidissima, plus minus reflexa*, enervia lulis elongatis angustis *conflato-incrassatis pallid* areolata; theca in ped. erecto flexuoso laevi longiore siore purpureo *subhorizontalis, oblonga*, operc. *subulato recto*; perist. *robusti* dentes ext. latiusculi fescentes, int. *latiusculi flavidi perforati* aequilongi, *binis longiusculis tenuissimis nodosiusculis* albidis.

Patria. Nova Hollandia: Sieber.

Ab *H. julaceo* proximo notis cursive impressis

430. **H. divulsum** Hook. et Wils. (Lond. Journ. bot. 1844. p. 556.); caulis rigidus crassus subdendroid

uperne ramosus, ramis confertis subsimplicibus incurusculis; folia patula laxe imbricata obovata rotundata oncava obtusissima minutissima serrulata seminervia, unctulate areolata; theca in ped. laevi ovato-cernua, perc. conico-acuminato. †.

Patria. Terra Van Diemen: J. D. Hooker.

Ab auctoribus *H. vago* Hsch. (non *vaganti*, ut dunt,) haud dissimile declaratur, foliis autem obtusissimis istare dicitur.

Incertae sedis.

431. **H. scariosum** Tayl. (Lond. Journ. of bot. 1846. . 65.); caulis laxe implexus, ramis procumbentibus *subinnatis* albide virentibus scariosis sericeis; folia caulina erecta, ramea patentia, omnia cordata *longius apiculata* serrulata mediotenus uninervia, estriata, *latiora;* theca in ped. *laevi* ovata inaequalis inclinata fuscescens; perist. int. ciliolis singulis interpositis. †.

Patria. Ad truncos arborum in sylvis pr. Esmeraldos Andium Quitensium, altitud. 7000 pedum: W. Jameson.

Ex auctore ab *H. plumoso* caracteribus denotatis differt; e Wilson (l. c. p. 453.) ab *H. Megapolitano*, cujus varietatem putat, foliorum margine parum revoluto et areolatione firmiore distat. E descriptione ramis scariosis longe distare videtur.

432. **H. pendulum** C. Müll.; caulis tenuis longiuscule prostratus, ramis elongatis iterum ramulosis vel breviuribus attenuatis subflexuosis simplicibus; folia caulina laxe disposita, ovata denticulata minuta, opaca nigricantia, humore pellucida obscure viridia; perichaetia tenuia pallida; theca in ped. brevi nigricante minute ovalis horizontalis, dein pendula, operc. conico oblique rostrato. †.

Isothecium pendulum Brid. II. p. 765. — Hypnum denticulatum exiguum, pendulum, atro-virens Dill. Musc. p. 332. t. 43. f. 67.

Patria. Patagonia, unde habuit Dillenius, qui inter alios muscos arboreos specimina nonnulla legit.

β. furcatum; folia minus concava, molliora, ciliis rginis longioribus tenerioribus apice summo brevissime idis. *Leskea asperella* W. P. Sch. in litteris.

Patria. In arboribus et rupibus Americae septen- ionalis arcte adhaerens passim degit. In Pensylvania rimus legit Mühlenberg.

β. Folia ovato-acuminata.

434. **H. polycarpum** Hoffm. (Deutschl. Fl. II. p. 67.); *ronoicum;* late decumbens viridissimum rigidiusculum; aulis repens, ramis vagis ascendentibus, apice parum curvis, tenuibus brevibus laxifoliis, filis brevibus paucis mplicibus chlorophyllosis obtectus; folia caulina crispate bricata, humore subito laxe patula, plerumque subse- cta, *ovato-lanceolata falcata* integerrima concava, nervo *ili* ante apicem evanido, margine basi tantum parum exo, cellulis rotundis chlorophyllosis viridibus; perich. *attenuati*, sed anguste acuminata; theca in ped. lon- sculo laevi rubente tenui erecta cylindracea microstoma *lidissima leptodermis, dein ochracea, late annulata,* erc. *conico recto;* perist. d. ext. siccitate valde involuti, more elongati stricti, *angustissime lineari-lanceolato- uminati, fusciduli, rugulosi* trabeculati, superne articu- ti, linea longitudinali obscura notati, int. in membr. al- uscula *fusca* aequilongi angustissimi carinati *solidi, fusci ugulosi*, ciliis *rudimentariis binis fuscis* interpositis.

Leskea polycarpa Ehrh. Crypt. Exs. n. 96. — Brid. II. p. 314. - *Hypnum medium* Dicks. Crypt. Fasc. 2. p. 12. — *H. multiflo- um* P. B. Prodr. p. 66. — H. trichodes, capsulis oblongis setis evioribus. Dill. Musc. p. 331. t. 42. f. 65.

H. paludosum Arn. Disp. p. 66. — *Leskea paludosa* Brid. II. 315. — *L. palustris* Hdw. Musc. Fr. IV. p. 2. t. 1. — *Hypnum lustre* Hoffm. Deutsch. Fl. II. p. 64. — *H. inundatum* Dicks. sc. Crypt. IV. p. 17. — H. heterophyllum, aquaticum, polyce- alum. Dill. Musc. p. 293. t. 37. f. 27. B?

β. exile; caulis gracillimus, foliis minutis lanceolato- cuminatis, theca angustissime cylindrica. *Leskea exilis* arck. in Brid. Mant. Musc. p. 145. et Br. univ. II. p. 306. — Schw. ppl. I. II. p. 174. t. 85.

Patria. Per totam Europam et Americam septentrionalem, ad truncos atque radices arborum et ad rupes, praesertim in humidiusculis inundatis. Var. *β.* locis iisdem siccioribus. — *Vere.*

Ab *H. attenuato* affini ob vestigia laudata distinctissima species.

435. **H. obscurum** P. B. (Prodr. p. 67.); *monoicum;* late decumbens, e sordide viridi fuscescens, rigidiusculum; caulis repens, ramis vagis ascendentibus *apice strictis attenuatis, rarius subcurvulis, densifoliis* brevibus, filis paucis simplicibus rigidis obtectus; folia caulina *dense imbricata erecto-appressa, humore erecto-patentia, nunquam secunda,* ovato-lanceolata, subfalcata integerrima concava, nervo viridi ante apicem evanido, inferne valido, margine convexo-planiusculo, haud distincte reflexo, cellulis rotundis *firmis* sordide viridibus; perich. *lanceolato-acuminata elliptice areolata, nervo ante apicem evanido, laevia;* theca in ped. longiusculo laevi rubente crassiore erecta cylindracea submicrostoma *rufescens,* conico-operculata, annulata; perist. *H. polycarpi.*

Leskea obscura Hdw. Sp. Musc. p. 223. t. 57. — Brid. II. p. 300. — *L. gracilescens* Hdw. l. c. p. 222. t. 56. — Brid. II. p. 299. — *Hypnum gracilescens* P. B. Prodr. p. 64.

Patria. In inundatis ad arborum radices Americae septentrionalis Mühlenberg detexit.

Ab *H. polycarpo* affinissimo caracteribus expositis facile distinguitur.

436. **H. nervosum** C. Müll.; *dioicum; longe prostratum* late cespitosum, viride tenue; caulis *elongatus filiformis repens, ramis inordinate pinnatis teneris attenuatis appressis,* filis folioliformibus parcissimis integris; folia caulina dense imbricata, humore erecto-patentia, *e basi decurrente ovatâ longe acuminata stricta, margine inferne valde revoluto integerrimo,* nervo valido viridi longo *subexcurrente* cellulis rotundis *glabriusculis, haud opacis;* perich. *longissima* laevia pallida diaphana, basi laxius reticulata longe vaginantia, *ad acuminis basin parce*

emarginato-dentata, nervo tenuiore subexcurrente; theca in ped. longiusculo rufo laevi erecta cylindraceo-oblonga, microstoma, late annulata, fuscidula, operc. conico *acuminato curvulo;* perist. d. ext. *brevissime lanceolati aurantiaci laeves, laeviter trabeculati et linea longitudinali obsoleta exarati, int. angusti solidi concolores, ciliis irregularibus singulis brevibus concoloribus interpositis.*

Leskea nervosa Myrin et dein Spruce in Musc. Pyr. No. 94. in Ann. aud Mag. of Nat. Hist. 1849. — *Leskea Norvegica* Sommerf. — *Anomodon nervosus* Hüb. Musc. Germ. p. 561. — *Maschalocarpus nervosus* Spreng. Syst. Veget. IV. I. p. 158. — *Pterigynandrum nervosum* Brid. II. p. 189. — *Pt. longifolium* Schleich. Cent. IV. n. 8. — *Pterogonium nervosum* Schw. Suppl. I. I. p. 102. tab. 28. — *Leskea extensa* Starck in schedulis! — *Grimmia cylindracea* Web. et Mohr. Bot. Taschb. p. 157.

Patria. Per totam Europam, in arboribus et terra; sed nunquam vulgare, plerumque in regione montosa et subalpina. — *Vere,* sed rarissime fructificans.

Ab *H. polycarpo* affini notis laudatis distinctissimum.

437. H. fragile C. Müll.; dioicum? caulis repens *humillimus tenellus, ramis perbrevibus* suberectis incurvis gracillimis parce ramulosis; folia caulina dense imbricata, humore squarroso-patentia, ovato-acuminata, parum ovato-ligulata obtusiuscula, *fragilia* glauca, nervo valido ante apicem evanido, margine erecto, cellulis rotundatis opacis papillosis, basi pallidioribus; perich. erecta longiora ovato-lingulata; theca in ped. *perbrevi* laevi suberecta *minutissime ovalis,* simpliciter annulata, operc. *conico oblique rostellato,* calyptra *minutissima pilosa;* perist. minutum. †.

Anomodon fragilis Wils. Lond. Journ. of bot. 1848. p. 275. t. 10.

Patria. China, ad truncos arborum vetustos insulae Chusan: T. Anderson.

E vestigiis accuratius designatis ab omnibus congeneribus facile distinctum. Auctor perist. perfectum non vidit; ex analogia hypnoideum nobis certum est.

438. **H. angustatum** C. Müll.; caulis laxe cespitosus procumbens vage ramosus teres pallide olivaceo-viridis, ramis *acutioribus* folia caulina *densius appressa* erecta, cordata acuminata, *margine basi recurva* integerrima, nervo ante apicem evanescente; perich. lanceolata erecta, thecam parum superantia; theca erectiuscula *cylindracea;* perist. d. int. brevissimi. †.

Leskea angustata Tayl. Lond. Journ. of bot. 1846. p. 62.

Patria. Ad truncos arborum pr. Quito vulgare: W. Jameson.

Ab *H. rostrato* ex obs. auctoris caracteribus expositis differt. E Wilsoni ratione ad *H. consanguineum*, certe distinctum, revocandum sit.

439. **H. consanguineum** C. Müll.; *dioicum; H. nervoso* simile, sed rami crassiores; folia caulina *latius ovata, falcate breviter acuminata, margine haud revoluto,* cellulis magis pellucidis; theca vix annulata, operculo *conico obtuso brevi.*

Pterogonium consanguineum Mont. Ann. d. sc. nat. 1842. p. 20.

Patvia. Montes Neelgherienses, in cortice arborum: Perrottet.

Perist. internum non vidimus; procul dubio vero aderit.

440. **H. viticulosum** Linn. (Sp. Pl. p. 1592.); *dioicum;* cespites latissimi laxi viridissimi elati mollusci, inferne ochracei; caulis secundarius elatus, *ramis paucis apice incurvis,* filis vix ullis simplicibus obtectus; folia caulina *laxe imbricata,* e basi *late ovatâ ligulato-acuminata obtusa, falcata, carnosa,* majuscula, subsecunda, humore subito maxime reflexa, margine basi revoluto, superne crenulato, nervo valido pallido ante apicem abrupto, cellulis subrotundis diaphanis, sed ob papillas densissime aggregatas maxime opacis, infima basi sola pallidioribus; perichaetia subimmersa, angustissima parva, foliis appressis, e basi vaginante laxe reticulata angustius et acute acuminatis, superne opacis; theca in ped. *elongato flavido stricto erecta, cylindraceo-oblonga microstoma*

pallida, dein nitide fusca, late annulata, operc. *conico oblique acuminato, brevi;* perist. duplicis d. ext. longiuscule lanceolato-acuminati, flavidi, superne albidi, sublaeves, laeviter trabeculati, linea longitudinali pallida exarati, apice subfissiles, interni capillares aequilongi albidi; ciliis 1 — 2 brevissimis tenerrimis fugacissimis interpositis.

Neckera Schlechtendalii Pieper: De Neck. Schlechtendalii 1838. p. 9. t. 1. — *N. viticulaeformis* ej. l. c. p. 8. t. 1! — *N. viticulosa* Hdw. Fund. Musc. p. 209. t. 48. — Brid. Br. univ. II. p. 231. — *Anomodon viticulosus* Hook. et Tayl. Musc. Brit. p. 79. t. 22. — *Leskea viticulosa* Spruce in Musc. Pyr. No. 100. Ann. and Mag. of Nat. Hist. 1849. — *Leskea vivipara* Willd. — H. subhirsutum, viticulis gracilibus erectis, capsulis teretibus. Dill. Musc. p. 347. t. 39. f. 43.

β. brachycarpum; folia breviora magis incrassate areolata, theca brevis elliptica. *Anomodon obtusifolius* Br. et Sch. in Musc. Amer. Drumm. No. 163. Lond. Journ. of bot. 1843. p. 667. — *Neckera minor* Sulliv. Musc. Allegh. No. 74, non Bridel!

Patria. Per totam Europam et Americam septentrionalem ad truncos arborum et rupes, vulgare. — *Vere,* sed rarissime fertile.

Hypno attenuato primo visu simile, sed caule elonga o parce ramoso et foliis obtusis statu quoque sterili facillime discernibile.

441. H. Rugelii C. Müll.; *dioicum; H. viticuloso* simillimum, sed *ramis gracilioribus strictis;* folia *multo minora, brevissime mucronata,* longius papillosa, margine basi *valde undulato nunquam revoluto;* perich. caulinis similia; theca *brevius pedunculata* brevior; perist. d. ext. *angustissimi breves ubique articulati et rugulosi, linea longitudinali non exarati.*

Leskea apiculata Schimp. in litteris.

Patria. America septentrionalis, Smoky-Mountains reipublicae Tenessee: Rugel.

442. H. attenuatum Schreb. (Spic. Fl. Lips. p. 100.); *dioicum;* late cespitosum, procumbens, caulis ramosissimus, ramis *vagis apice curvatis involutis v. tenerioribus flagelliformibus attenuatis,* viridissimis v. luteo-viridibus,

rigidiusculis, filis paucis conglomeratis in foliola angusta brevia transeuntibus obtectus; folia caulina *subcrispate imbricata, humore subito reflexa*, dein laxe patula, interdum secunda, *e basi amplexicauli ovatâ lanceolata acuta carnosa maxime opaca*, margine erecto basi parum undulato integro, apice crenulato, nervo valido *pallido* ante apicem evanido, cellulis minutissimis rotundatis tenerrime papillosis, infima basi pallidioribus; perich. vaginantia *laxiuscule tenerrime pellucide ubique reticulata* longius anguste acuminata, papillis tenerrimis margine crenulata, obsoletinervia; theca in ped. longiusculo purpureo laevi erecta, cylindraceo-oblonga badia exannulata, operc. *pallido conico subulato subobliquo;* perist. d. ext. longi angusti albidi laeviter trabeculati, superne articulati hyalini subfissiles, int. in membrana *albida* altiuscula aequilongi angustissimi hiantes *rugulosi albidi*, ciliis *singulis brevibus* interpositis.

Anomodon attenuatus Hüb. Musc. Germ. p. 562. — *Neckera minor* P. B. Prodr. p. 78. — Brid. II. p. 233. — *Leskea attenuata* Hdw. Musc. Fr. I. p. 33. t. 12. — Brid. II. p. 317. — *L. radicans* Schrank. Baiers. Fl. 2. p. 460. — *Hypnum clavatum* Bellard. App. ad Fl. Pedem. p. 51, fide De Notaris. — *H. stoloniferum* P. B. Prodr. p. 70! — *H. fulvum* Brid. Sp. Musc. II. p. 152. — H. repens, trichodes, arboreum majus, cauliculis ramosis. Dill. Musc. p. 331. t. 42. f. 66. a—c.

Patria. Per totam Europam et Americam septentrionalem, in terra et truncos arborum vulgare, sed rarissime fructificans. — *Auctumno et hyeme.*

H. viticuloso habitu maxime affine, sed foliis acutis primo momento distans.

443. **H. longifolium** C. Müll.; *dioicum;* latissime prostratum, e viridissimo lutescens, dein ferrugineum, implexum, ramosissimum, ramis *filiformibus teneris* elongatis apice parum incrassatis et incurvatis dichotomis, ascendentibus, filis paucis simplicibus cellulosis brevibus; folia caulina dense imbricata, humore laxe disposita, secunda, *e basi decurrente longiuscule anguste ovato-lanceolata falcate acuminata*, carinata, crenulata, *margine*

basi subventricose convexo parum revoluto, nervo valido flavido ante apicem evanido, cellulis mollibus chlorophyllosis viridissimis obscuris granulosis; perich. longiora; theca in ped. breviusculo flavido tenerrimo *angustissime cylindraceo-oblonga*, *exannulata* fuscidula, brevicolla, operc. *longe subulato tenuissimo* obliquo; perist. d. ext. *angustissimi breves lutei*, ad lineam longitudinalem subbissiles, vix rugulosi, int. capillares albidi, ciliis rudimentariis interpositis.

Leskea longifolia Spruce Musc. Pyren. Exs. No. 87. — *Anomodon longifolius* Bruch in litteris et Hartm. Sk. Fl. V. p. 339. — *Leptohymenium longifolium* Hmp. in litteris. — *Pterigynandrum longifolium* Schleich. ad *Hypn. nervosum* pertinet.

Patria. Ad truncos arborum in regione montosa; in fagis sylvarum altarum pr. Blankenburg Hercyniae copiosissimum: Hampe; prope Monachium et pr. Idriam Carniolae: Sendtner; in Istria ad Monte Maggiore Papperitz legisse fertur; Helvetia forte carebit; in Pyrenaeis ad arbores et saxa: Spruce; in Forfarshire Angliae fide Sprucei: Gardener et Scott; in Gothia, Norvegia et Suecia ex Ångström. — *Novembri.* Rarissime fertile!

Ab *H. viticuloso v. attenuato* proximis notis expositis facile distinguitur.

444. **H. rostratum** P. B. (Prodr. p. 69.); *dioicum; caute dense intricato-cespitosum, inferne amoene rubigineosum, superne glauco-viride, molle;* caulis longe repens, ramis brvissimis dispositis, *dein ascendentibus erectis valde fasciculatim divisis teretibus gracilibus, gemmulis foliaceis viridioribus hic illic nodosiusculus,* filis folioliformibus angustissimis integris obtectus; folia caulina sicca et madefacta appressa, e basi ovatâ lanceolata, in acumen subuliforme *flexuosum flavidum* producta, *inaequaliter carinato-concava, minutissime rotundate areolata valde opaca viridissima, undulata,* margine *valde revoluto flexuoso,* nervo profunde canaliculato pallido evanido tenui; perich. vaginantia lanceolata, longissime acuminata, ad acuminis basin emarginata tenuiter laxe reticulata pellu-

cida obsoletinervia; theca in ped. breviusculo rufo laevi erecta turgide ovalis leptodermis pallida exannulata, operc. conico subulato obliquo; perist. d. ext. breves lanceolati pallidi trabeculati, int. irregulares breviores in membrana tenera, ciliis binis connatis asperis albidis interpositis.

H. caturum P. B. Prodr. p. 62! — *H. desmiphorum* P. B. l. c. p. 63! — *H. flavens* Mich.! — *H. sabinaefolium* Brid. Mant. Musc. p. 166. — *Leskea rostrata* Hdw. Sp. Musc. p. 226. t. 55. — Brid. II. p. 303. — *Pterigynandrum crinitum* Brid. II. p. 192! — *Lesia marginata* Brid. Mant. Musc. p. 133! — II. p. 203. — *Pterigynandrum marginatum* Rich. Fl. Am. Bor. Mich. II. p. 292! — *Pterogonium marginatum* Schw. Suppl. I. I. p. 108! — Hypnum Julaceum, erectum sericeum repens, capsulis cylindraceis. Dill. Musc. p. 322. t. 41. f. 58. C!

Leskea imbricatula Hdw. Sp. Musc. p. 224. t. 52 e spec. auth. Hedwig. et Mühlenberg. huc pertinet! — Brid. II. p. 298. — *Hyp. imbricatulum* P. B. Prodr. p. 65.

Patria. Per totam Americam septentrionalem, ad rupes humidas vulgare. In alpibus Julicis ad montem Predil, ad viam inter Mittelbreth et Oberbreth, in radicibus *Coryli Avellanae:* Sendtner legit, specimina mecum autem non communicavit. In Pyrenaeis Spruce indicavit, qui in sylvaticis ad rupes inque fruticum radicibus zonae montosae superioris legit.

Caracteribus laudatis primo adspectu distinguitur.

Species non satis nota.

445. **H. Sclerodontium** C. Müll.; monoicum; caulis repens foliosus vage ramosus rigidus, ramis brevibus simplicibus v. brevissime ramulosis teretibus sordide viridibus rigidis; folia caulina erectiuscula, ramulorum paullum patula v. patulo-imbricata, parva, late ovata, vix acuminata, ramulina cordato-ovata integerrima subacuta pellucida mollia sordidé viridia, nervo valido excurrente rufescente, margine erecto, cellulis subrotundis; perich. duplo longiora ovata anguste acuminata nervosa; theca in ped. brevi crasso rufo laevi subrecto erecta oblonga teres parvula badia simpliciter annulata, operc. conico obtuso; perist. intus adnatum badium, dentibus anguste lan-

ceolatis laeviter trabeculatis, ad lineam longitudinalem e basi usque fere ad apicem hiantibus; calyptra dimidiata glabra. †.

Leskea pellucida Hook. in litt. ad Schwägr. — *Sclerodontium pellucidum* Schw. Suppl. III. II. 2. t. 292.

Patria. Brasilia, ad arbores.

Cum *Hypno polycarpo* auctor comparavit. Peristomium delineatum externum et ob statum imperfectum plantae internum praetervisum videtur. Verosimiliter huc pertinet.

b. *Theca inclinata.*

446. **H. catenulatum** Brid. (Sp. Musc. II. p. 154.); *dioicum;* cespites lati plani *rubiginoso-virides* maxime intricati; caulis longe repens, ramis brevibus subsimplicibus *julaceo-filiformibus erectis aequalibus ascendentibus* irregulariter pinnatus, *foliolis paucis subspinaeformibus parvis* saepe obtectus; folia caulina appressa, humore parum patula, *lanceolata stricta, margine basi parum reflexa, integerrima, carinata,* nervo ultra medium evanido, cellulis *amoene viridibus carnosulis subincrassate rotundatis, haud opacis,* alaribus *distinctioribus rhomboideo-quadratis,* omnibus sublaevibus; perich. pallida pellucida, lanceolata longius acuminata, recta, subnervosa, ad acuminis basin saepe emarginato-sinuata; theca in ped. brevi rufo laevi arcuato-oblonga badia, *annulata,* operc. *conico-rostellato obliquo;* perist. d. int. subhiantes, ciliis *singulis v. binis distinctis.*

Brid. II. p. 450. — *H. Algoicum* Froehl. in litt. ad Brid. — *H. catenatum* Vill. Pl. Dauph. III. p. 909? — *Pterigynandrum catenulatum* Brid. Musc. Rec. II. I. p. 64. *t.* 5. f. 4. — *Pterogonium catenulatum* Schl. Crypt. Exs. et Cat. Pl. Helv. p. 30. 1807. — *Grimmia catenulata* Web. et Mohr. Bot. Taschb. p. 151.

Leskea Fröhlichii Brid. Sp. Musc. II. p. 70. et Br. univ. II. p. 305, e spec. auctoris incompletis pauperrimis huc forma pertinet.

Patria. E regione montosa ad alpinam ascendens, per totam Europam. — *Aestate et auctumno,* sed rarius fertile.

Notis laudatis ab *H. filamentoso var. tenui* facile distinguitur.

447. **H. triste** C. Müll.; *dioicum;* cespites latissimi deplanati viridissimi sordidi v. lutescentes maxime intertexti, caulis longe repens, ramis breviusculis filiformibus tenerrimis ascendentibus in ramulos breves distantes *apice subcurvulo minutissime gemmaceo-clavatos divisis* parce partitus, filis folioliformibus subcellulosis vix ullis obtectus; folia caulina *humore subito squarrosa*, e basi *latiuscule amplexante anguste subligulato-acuminata, superiora brevissime mucronata, inferiora obtusa*, concava subreflexa, margine erecto, subundulato ob papillas *grossiusculas distinctas valde crenulato*, nervo dimidiato v. saepius nullo, cellulis *grosse rotundatis mollibus viridissimis chlorophyllosis.*

Leskea fragilis Hook. et Wils. in Drumm. Musc. Amer. No. 101. — Sulliv. Musc. Allegh. Exs. No. 71! — *Leskea tristis* Cesati in De Not. Syllab. Muscor. 1838! p. 67!!

Patria. America septentrionalis, in convallibus nec non in summis montibus, ad arborum corticem vulgare a Montreal usque ad New-Orleans, hucusque semper sterile collectum: Drummond, Sullivant. In Italia ad terram montis di s. Crescenzio prope Verbanum primus omnium legit *Cesati* sterile!

Ab *H. catenulato* affini caracteribus expositis longe distans, quoad foliorum structuram internam *H. viticulosum* magis aemulans.

448. **H. filamentosum** Bertol. (Amoen. p. 438.); *dioicum;* caulis repens flexuosus, ramis brevibus *teretibus obtusiusculis incurvis* simplicibus v. subfasciculatim ramulosis ascendentibus irregulariter pinnatus, filis *simplicibus folioliformibus multis* obtectus; folia dense appressa, humore patula *subsecunda*, e basi ovata margine late revolutâ lanceolata, breviter *falcate* acuminata, concava, crenulata, nervo valido rufescente ante apicem evanido, cellulis incrassate rotundatis opacis tenuissime papillosis; perich. latius lanceolato-acuminata pellucida te-

ero-reticulata laevia subnervosa stricta; theca in ped. revi purpureo laevi minute arcuato-oblonga fuscescens, xannulata, operc. conico brevi; perist. parvi d. int. angusti subsolidi flavidi, ciliis *brevissimis rudimentariis singulis.*

Leskea atrovirens Hartm. Sk. Fl. V. p. 337. — *Leskea incurvata* Hdw. Sp. Musc. p. 216. t. 53. — Brid. II. p. 320. — *H. curvatum* P. B. Prodr. p. 65. — *H. atrovirens* Sm. Fl. Brit. III. p. 1307. — *H. filiforme* Vill. Pl. Dauph. III. p. 906 fide De Notaris.!

β. tenue; caulis filiformis tenuis rubiginoso-viridis. *Leskea punctata* Fröhl. in litt. ad Bridel. — *H. implexum* Brid. Musc. Rec. II. II. p. 150. t. 4. f. 3. *H. catenulato* haud dissimile!

γ. brachyclados; caulis prostratus, ramis brevibus confertis robustioribus, foliis sublaevibus majus areolatis, diaphanis. *Leskea brachyclados* Schw. Suppl. I. II. p. 173. — Brid. II. p. 323.

δ. papillosum; habitus var. praecedentis, folia minora, margine apicis distincte serrulato-papillosa. *Leskea Gaviana* De Not. Syllab. Musc. p. 63!

Patria. E regione montosa ad alpes totius Europae ascendens. In alpibus Aquianis in Sagro Bertolonus legit. Var. *β.* in alpestribus forma vulgaris; var. *γ.* ibidem rarior; var. *δ.* in Apennino Etruriae et Piceni plurimis locis: Orsini. — *Vere.*

Ab *H. circinnato* proximo vestigiis laudatis differt.

449. **H. circinnatum** Brid. (Sp. Musc. II. 1812! p. 48.); *dioicum;* cespites lati decumbentes rigidi obscure virides; caulis longe repens, *filis folioliformibus destitutus*, ramis humilibus assurgentibus, in ramulos brevissimos curvulos teretes obtusiusculos fastigiatim divisis; folia caulina dense conferta, *vix secunda*, humore parum mutata, e basi subrotundate ovatâ breviter lanceolato-acuminata *substricta*, basi cochleariformi-concava, inferne lenticulata, apice serrulata, ob marginem inferne valde revolutum biplicata, firma, nervo valido in acumen evanescente *viridi*, cellulis minute rotundatis virentibus *subaevissimis diaphanis* incrassatis firmis, alaribus minute

quadratis permultis pachydermibus; perich. pallida, e l
late vaginante in acumen reflexiusculum *longissimum*
tenuata, subdenticulata, nervo tenui longo evanido a
leto, cellulis angustis elongatis pallidis; theca in
brevi valido rubro subinclinata oblonga vix vel subcu
operc. conico acuminato recto; perist. d. ext. robusti
fescentes, int. flavi laeves hiantes, ciliis singulis rob
interdum in bina fissilibus, albidis.

Brid. II. p. 409. — *H. circinnatum* Wils. in schedulis, c
determinatione nova species! 1849! — *H. Grevillii* Rabenh. B
Krypt. 1848! II. p. 291! — *H. Mediterraneum* Sendtn. Reg
bot. Zeit. 1848! No. 5. — W. P. Schimper in litteris 1847! -
Salzmannianum Hmp. in litteris 1842! — *H. Leskea* Grevill
Trans. of the Linn. Soc. XV. II. 1827! p. 342. t. 3. f. 4! — H.
gosum β. *circinnatum* Brid. II. 1827. p. 447. — *H. distans*
Sp. Musc. II. 1812! p. 109; forma foliis parum laxius areolatis
rophyllosis! — Brid. II. p. 409.

Patria. In muris saxisque calcareis, e regione p
tarum sempervirentium Istriae (Sendtner!) per Ita
superiorem (Garovaglio!) et mediam (Bridel!)
Galliam australem (Requien! Salzmann! W
Sch.!) et Pyrenaeos australes (Arnott!). Ex i
Jonicis habuit R. K. Greville! Ad terram in fa
tis calcareis Angliae, prope Dorking in Sussex: Mi
Oras maritimas calcareas temperatas totius Europae,
que tamen rarissime fertile, habitare videtur.

Ab *H. filamentoso* proximo notaculis expositis
refugit; ab *H. strigoso* foliorum margine late
revoluto jam differt.

450. **H. Zippelii** Dz. et Molkb. (Ann. sc. nat. 18
p. 310.); caulis repens intricato-ramosus, ramis erec
simpliciusculis pusillus, folia horizontaliter patentia s
squarrosa, e basi amplexicauli *late cordato-lanceolata*
tusiuscula denticulata obesula, nervo infra apicem evan
cellulis *minutiusculis angulate rotundatis obscuris*
miusculis, vix papillosis; perich. erecta ovato-lanceo
acuminata integerrima plicata, nervo obsoleto v. n
theca inclinata oblonga curvata, operc. convexo-co
obtusiusculo.

Patria. Amboina: Zippelius.

Fructum non vidimus.

451. **H. prionophyllum** C. Müll.; caulis debilis vage ipinnatus; folia caulina laxe imbricata, remota, *anguste inceolato-acuminata stricta planiuscula, parum carinata, basi usque ad apicem dense serrulata*, minutissime roundate areolata, opaca, tenerrime papillosa, nervo flaido excurrente, margine erecto; theca cernua ovata.

H. nervosum Hook. in Ic. Pl. Rar. t. 24. f. 3. — Cum diagnosi larvey in Lond. Journ. of bot. 1840. p. 21.

Patria. Nepal: Wallich.

Species distincta, cujus fructum pauperrime descritum et delineatum non vidimus.

Incertae species.

1. **H. Jacquinii** Garov. (Bryol. Austr. p. 82 et 87.); aulis repens filiformis tenuis, dense intricatus, obscure irens; folia sicco patentissima, remote disposita, rigida, itore destituta, angustissime ovato-lanceolata, triplo ngiora quam lata, margine erecto, nervo ad medium vanido; theca in ped. scabro ovato-ventricosa brevis, perc. duplo longiore. †.

Patria. In Austria inferiore, ad saxa arenaria in alleculis montium, pr. Neuwaldegg, Hütteldorf, Mauerach alibique copiose: Garovaglio.

An *H. triste?*

2. **Leskea Polenburgii** Łobarz. (in Haidinger's Naturwissenschaftlichen Abhandlungen 1847. p. 55.); cespies lati pulvinati rubiginoso-olivacei molles; caulis basi iliformis, tenerrimus prostratus varie divaricatus, inorinate divisus rubiginosus nudus, sensim crebre ramifians crassior foliosus, ramis vagis fasciculatis virgatis abellatisque cunctim fastigiatis julaceo-squarrosifoliis rtioribus apice hamato-incurvis, aliis filiformibus lonissimis simplicibus filamentosis; folia sensim increscentia, asilaria rubiginosa minutula laxe imbricatula caduca, su-

lide reticulata; theca in ped. longiusculo badio laevi rigido rectiuscula, *anguste arcuato-cylindrica*, badia, annulata, operc. *conico;* perist. *H. ramulosi.*

Hdwg. Musc. Fr. IV. p. 84. t. 32. — *H. Stereodon abietinus* Brid. II. p. 573.

Patria. Per totam Europam et in America septentrionali, in locis apricis vulgatissimum, sed rarissime fertile. — *Auctumno.*

453. **H. tamariscinum** Hdw. (Sp. Musc. p. 262. t. 67.); *dioicum;* cespites latissimi, laxi prostrati *aureo-virides non splendentes;* caulis assurgens crassiusculus, divisionibus pluribus vage divisus, ramis rigidis gracillimis eleganter breviter pinnatis, apice longius producto subcuspidato tenerrimo vix flexuoso praeditis, densissime approximatis subdistiche dispositis, haud recurvis bipinnatus, apice flagellis saepe innovans, filis tenerrimis valde divisis et *maxime articulatis confervoideis* curvatis obtectus; folia caulina *minora, cochleariformi-ovato-lanceolata,* margine *late revoluto scabro,* nervo *unico valido fuscescente ante apicem evanido,* cellulis *ubique incrassate rotundatis pallidis, dorso subciliate grosse scabro-papillosis;* perichaetia minora, foliis late lanceolatis, in acumen *longissimum denticulatum* apice recurvum acutum productis, basi plicatis, pallidis, *scariosis,* e cellulis *conflatis* compositis laevibus; theca in ped. longiusculo crasso laevi aurantiaco rigido *longiuscule et valde arcuato-cylindracea* subhorizontalis badia, annulata, operc. *conico acuminato;* perist. robusti d. int. lati longi flavidi punctulati, vix hiantes, ciliis binis albidis aequilongis.

Brid. II. p. 438. — *H. tamariscifolium* Neck. Meth. Musc. p. 158. — *H. proliferum* L. Sp. Pl. p. 1590 ex parte. — *H. parietinum* Murr. in Linn. Syst. Veget. p. 590. — *H. delicatum* Ehrh. Dec. n. 301. — Hypnum filicinum Tamarisci foliis minoribus non splendentibus. Dill. Musc. p. 276. t. 35. f. 14.

H. protensum Rich. in Mich. Fl. Am. Bor. II. p. 317. huc certe pertinere videtur. — *H. recognitum* Hdw. Musc. Fr. IV. p. 92. tab. 35.

Patria. Per totam Europam et Americam septentrionalem, ubi in sylvaticis vulgatissimum. In prom. b. spei: Zeyher et Ecklon. — *Auctumno et hyeme,* praeterea per anni partem magnam thecis maturis.

454. **H. delicatulum** Hdw. (Musc. Fr. IV. p. 87. t. 33.); *dioicum; H. tamariscino* simillimum, sed folia papillis *multo minoribus scabriuscula,* perich. longissime *late loriformi-acuminata,* e cellulis plerumque grossis robustis pellucidis sublaxis reticulata, latissime nervosa, margine *revoluto ad basin acuminis densissime serrulati ciliate papillosi lobato-fimbriato, ciliis plerumque simplicibus strictis, sed saepe longissimis maxime geniculato-articulatis et spinoso-ramosis igitur crispis* rarissime obsoletis praedito; perist. d. int. ciliis ternis interpositis; operculo *longirostro obliquo.*

H. tamariscinum δ. delicatulum Brid. II. p. 441. — H. filicinum, tamarisci foliis minimis non splendentibus, setis capsulisque brevioribus. Dill. Musc. p. 546. t. 83. f. 6.

Patria. In locis iisdem cum *H. tamariscino,* in Europa tamen rarius; specimina ex Helvetia, Hercynia et Scotia tantum vidimus. E Mexico retulerunt Deppe et Schiede. Insula Antillarum Trinidad: Crüger. Venezuela, prov. Caracas, pr. Galipan, alt. 5000′, in lapidibus, Coll. Lind. No. 349: Funck et Schlim.

E specimine auth. Hedwigiano species haecce descripta c. fol. perich. lobato-ciliatis vera est. Ab aliis auctoribus (e. gr. Hübener. Musc. Germ. p. 658 et 659.) inversa vice descripta et synonymia igitur vix extricanda est. E foliis perich. longe lateque loriformibus papillosis facillime distinguitur. Oportet observationes recentiores ostendant, an species zonae tropicae eadem sit quam zonae temperatioris Europae atque Americae septentrionalis; sterilem solam perichaetiis praeditam vidimus.

455. **H. pseudo-protensum** C. Müll.; (Bot. Zeit. 1848. p. 779.); *dioicum; H. tamariscino* simillimum, sed folia *tenerrime papillosa, minutius areolata, late cordato-acuminata, plicata,* perichaetia parva, foliis late *ovato-*

nceolatis, in acumen *breve rectum* productis, *haud pli-tis, tenerrime remote papillosis*, incrassate reticulatis.

Patria. Venezuela, prov. Merida, Lagunetta pr. Me-da, alt. 6500 pedum, in arboribus, Septbr. 1846: Funck Schlim in Coll. Linden. No. 992, cum perichaetiis gerunt.

456. **H. cymbifolium** Dz. et Molkb. (Ann. d. sc. t. 1844. p. 306.); *dioicum; H. delicatulo* simillimum, d folia caulina e basi late ovato-cordata profunde con-va plicata in acumen *longissimum confervoideo-pilifor-e articulatum flexuosum* producta, viridia *sublaevia*, inute rotundato-areolata, margine infra acumen late voluto, vix crenulato; ramulina minutissime cordato-nceolata acuta magis papillosa evanidinervia; perich. te vaginanti-lanceolata, in acumen longissimum refle-um *tenue piliforme subcellulosum* producta, *laevia*, e cel-lis brevibus pellucidis areolata, intima margine in cilia blobato-confervoidea articulata laevissima producta; eca erecto-incurva cylindrica, infra orificium contracta.

Patria. Java, Sumatra.

Fructum non vidimus.

457. **H. Mascarenicum** C. Müll.; *dioicum; H. ta-ariscino* simillimum, sed folia parum papillosa majora, erich. *e basi late cochleariformi-ovatâ in acumen cana-culatum breviusculum anguste ligulatum v. acutum pro-ucta*, margine inferne *maxime late revoluto subcrenu-to*, nervo lato rufescente ante apicem evanido, e cellu-s *incrassate rotundatis* composita, *minutissime papillosa*.

H. tamariscinum Brid. Hb.

Patria. Insula Bourbonis, ubi altitud. 600 hexapo-um legit Bory St. Vincent.

458. **H. hastatum** C. Müll.; *dioicum; H. tamariscino* millimum, sed multo humilius gracilius pulcherrime au-um pulchellum, vix bipinnatum; folia caulina e basi *la-ssima maxime ventricose auriculata plicata subito ha-ato-lanceolata anguste acuminata falcata*, e cellulis mi-

nutis pachydermibus subrotundatis *subgriseis opacis tenerrime papillosis* composita, nervo *flavido* canaliculato *in apicem excurrente* valido, margine inferne valde revoluto, caviuscula.

H. recognitum Hmp. in Pl. Preiss. II. p. 119!

Patria. Nova Hollandia, ad Swan River: Preiss.

b. *Pedunculus scaber.*

459. **H. plumulosum** Dz. et Molkb. (Ann. d. sc. nat. 1844. p. 308.); *dioicum;* caulis crassiusculus rigidissimus longe flexuose repens, *ramificationibus planissimis* intricatis *obscure viridibus,* ramis *brevibus* alternis densiusculis, e basi usque ad apicem *elegantissime dense plumosis* bipinnatus, *apice stoloniferus nudus,* ubique densissime et breviter granulose filamentosus; folia caulina *minute cordato-lanceolata,* margine ubique paulisper revoluta, maxime opaca, tenerrime papillosa, nervo evanido *tenui* viridi; perich. e basi breviter ovata longe tenuiter acuminata acutissima denticulata, elongate anguste reticulata pallida laevia; theca in ped. *breviusculo* flexuoso rufo *ubique scaberrimo vix inclinata parva turgide oblonga, ore coarctata,* annulata, badia, perist. brevis d. int. *albidi rugulosi* vix hiantes, ciliis brevibus binis subconflatis albidis nodosis.

H. Meyenianum Hmp. Ic. Musc. t. 8. 1844. Nomen ob aliud synonymum ejusdem auctoris delendum. — *H. cymbifolium* Dub. in Moritzi Syst. Verz. p. 131!

Patria. Manila: Meyen. Java: Zollinger No. 1810. Sumatra et Borneo: Hb. Lugd. Batav.

Species ramis eleganter plumaeformibus primo visu cognoscenda.

460. **H. ramulosum** Hmp. (in litt.); *dioicum;* caulis humilis crassiusculus, *siccitate crispate foliosus* apice incrassatus parum incurvus, amoene viridis, ramulis brevibus inaequalibus simpliciter pinnatus; folia caulina *dense conferta, humore erecto-patula subflaccida, longiuscula,* e basi late cordata, *margine* maxime *subdecurrenti-au-*

riculato-revolutâ subito in acumen lanceolatum crenulatum *apice hyalino-piliferum* producta, *basi pallidiora*, superne et auriculis maxime opaca griseo-viridia, nervo pallescente ante apicem evanido, cellulis minutis rotundatis tenerrime papillosis; perich. e basi latissime ovata laxe reticulata pellucida tenuiter nervosa margine eroso-dentatâ longissime anguste acuminata acuta denticulata, ubique laevia; theca in ped. *brevi* crassiusculo *ubique scaberrimo* purpureo horizontalis parvula, turgide subcernuo-oblonga pallida, late annulata, operc. conico oblique rostrato; perist. breviusculi d. int. flavidi laeves valde hiantes, ciliis binis.

Patria. Cap. Dissapointement orae Americae occidentalis.

Notis litteris cursivis designatis sp. propria, *H. hastato* proxima.

Incertae sedis.

461. **H. scabrifolium** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 552.); caulis pinnatus; folia laxe imbricata dissita subrecurva, ramulina minora, vix secunda, sicca incurva, imbricata ovato-lanceolata acuminata, margine scabra, minutissime rotundate areolata, opaca, glaucescentia dorso papillosa, nervo valido excurrente. †.

Patria. In insulis Aucklandi sterile legit J. D. Hooker.

H. crispifolio Hook. ex observantibus auctoribus simile, sed humilius, foliis nec plicatis, nec falcatis.

462. **H. fuciforme** Brid. (Sp. Musc. p. 135 et Br. univ. II. p. 432.); *dioicum;* caulis elatus densifolius procumbens robustus, ramis irregularibus longiusculis iterum tenuiter simpliciter rarius irregulariter parce ramulosis 2—3 pinnatus, *sed nunquam plumosus*, filis paucis 1—2 seriatim cellulosis brevibus simpliciusculis obtectus, sordide fuscidulus; folia caulina erecto-conferta, humore parum patula, *ovato-ligulata obtusa vix acuminata* integerrima, margine inferne revoluto, nervo subvalido *luteo*

infra apicem evanido, cellulis incrassate ellipticis diaphanis laevibus; perich. *e basi subovata anguste loriformi-acuminata acutiuscula* laevia, incrassato-elliptice areolata.

Patria. In sylvis insularum Franciae et Bourbonis, ad terram: Bory St. Vincent.

H. umbrato v. Pyrenaico simile.

II. *Minutula.*

a. *Theca cylindracea.*

463. **H. scitum** P. B. (Prodr. p. 69.); *monoicum; H. abietino* simillimum, sed *multo gracilius et humilius, magis irregulariter et simpliciter pinnatum;* folia caulina e basi *latissima subundulate subauriculatâ brevissime hastato-lanceolata tenuiter plerumque falcate acuminata,* opaciora; perich. anguste lanceolato-acuminata pallida subscariosa subplicata; theca in ped. breviusculo laevi purpureo *anguste cylindracea, haud vel vix arcuata,* rectiuscula, operc. *conico-rostrato subrecto.*

H. Stereodon scitus Brid. II. p. 575. — *H. intertextum* Mühlenb. in Sulliv. Musc. Allegh. n. 6. — *H. porrigens* Wils. l. c.

Patria. Ad radices arborum Americae septentrionalis, ubi primus legit *Palisot de Beauvois.*

464. **H. gracile** Br. et Sch. (Lond. Journ. of bot. 1843. p. 668.); *monoicum; H. scito* simillimum, sed folia caulina *perfecte cochleariformi-ovata* concava, margine *regulariter late revoluta,* longius tenuiter subcurvate acuminata, perich. plicata laxius reticulata; theca valde *arcuato-cylindrica* subhorizontalis, annulata, operc. *conico brevi;* perist. int. triciliatum.

H. abietinum β. minor Hook. in Drumm. Musc. Amer. No. 217. — *H. varium* Hook. et Wils. in Drumm. Musc. Amer. No. 140 et 141. fide Sullivant. — *H. microphyllum* Mühlenb. Catal. fide Sullivant. Musc. Allegh. No. 5. — *H. Grayanum* Sulliv. in litt. 1850!

Patria. Ad lapides et truncos arborum Americae septentrionalis, e Sullivant sat frequens in Virginia.

465. **H. punctulatum** De Not. (Prodr. Bryol. Mediol. p. 78 et Syllab. Musc. p. 12.); *monoicum; H. gracili* si-

millimum, sed folia *grosse papillosa et distincte reflexo-acuminata, margine ob papillas distinctius crenulata, opaca, vix diaphana*, nervo *distincte excurrente;* perich. margine interdum lobato-ciliata; theca in ped. laevi longiusculo rufescente anguste arcuato-cylindracea, operc. *conico obtusiusculo;* perist. int. ciliis binis subtilibus.

Patria. Italia, in sylvis siccis prope Mediolanum, in collibus ad Verbanum: Balsamo et De Notaris; in sylvis prope Cavour Pedemontii: Romano.

Perist. non vidimus. Species Europaea *H. gracili* Americano ut *H. demissum H. adnato* respondens memorabilis.

466. **H. Jacquemonti** Br. et Sch. (in Musc. Abyss. No. 481.); humile laxe cespitulosum procumbens sordide lutescens rigidissimum, ramis *remotis patentibus* rigidis inaequaliter brevibus *simpliciter subpinnatum;* caule breviter filamentoso; folia caulina siccitate subcrispate squarrulosa, humore patula, *latiuscule hastato-lanceolata* subcurvula, margine basi revoluto, superne crenulato, nervo valido viridi ante apicem evanido, cellulis minutis opacis tenuiter papillosis; perich. latius lanceolato-acuminata tenera pallida laevia, *tenerrime breviter ciliata*, e cellulis laxiusculis pellucidis brevibus composita; theca in ped. brevi *flavido* rigido laevi parva subcylindrica arcuata subinclinata, pallida, operc. conico brevi; perist. parvi d. ext. angusti lutei, int. flavidi, breves subhiantes, ciliis brevibus albidis *singulis* fugacibus.

Patria. Abyssinia, ad arbores montis Bachit, 6. Aug. 1838: W. Schimper.

Ab *H. gracili* notis cursive impressis certe differt.

467. **H. Haplohymenium** Harv. (Lond. Journ. of bot. 1840. II. p. 21.); *monoicum;* tenerrimum procumbens, vage ramosum rigidissimum tenellum; rami ramulis *remotis siccitate circinnato-involutis* et crispate foliosis irregulariter simpliciter pinnati, amoene aureo-lutescentes; folia caulina *brevissime late cordato-ovata brevissime* curvate acuminata, margine *haud revoluto* crenulato, opaca

nutis pachydermibus subrotundatis *subgriseis* quo *nerrime papillosis* composita, nervo *flavido* cauli *in apicem excurrente* valido, margine inferne vix voluto, caviuscula.

H. recognitum Hmp. in Pl. Preiss. II. p. 119!

Patria. Nova Hollandia, ad Swan River: Pr

b. *Pedunculus scaber.*

459. **H. plumulosum** Dz. et Molkb. (Ann. d. s. 1844. p. 308.); *dioicum;* caulis crassiusculus rigid longe flexuose repens, *ramificationibus planissim* catis *obscure viridibus*, ramis *brevibus* alternis dens lis, e basi usque ad apicem *elegantissime dense* pl bipinnatus, *apice stoloniferus nudus*, ubique dens et breviter granulose filamentosus; folia caulina *cordato-lanceolata*, margine ubique paulisper re maxime opaca, tenerrime papillosa, nervo evanido viridi; perich. e basi breviter ovata longe tenuite minata acutissima denticulata, elongate anguste ret pallida laevia; theca in ped. *breviusculo* flexuoso ru *que scaberrimo vix inclinata parva turgide oblong coarctata*, annulata, badia, perist. brevis d. int. *rugulosi* vix hiantes, ciliis brevibus binis subconflu bidis nodosis.

H. Meyenianum Hmp. Ic. Musc. t. 8. 1844. Nomen ob nonymum ejusdem auctoris delendum. — *H. cymbifolium* Moritzi Syst. Verz. p. 131!

Patria. Manila: Meyen. Java: Zollinger 1810. Sumatra et Borneo: Hb. Lugd. Batav.

Species ramis eleganter plumaeformibus primo cognoscenda.

460. **H. ramulosum** Hmp. (in litt.); *dioicum*; humilis crassiusculus, *siccitate crispate foliosus* apice crassatus parum incurvus, amoene viridis, ramulis vibus inaequalibus simpliciter pinnatus; folia caulina *conferta*, *humore erecto-patula subflaccida*, *longi* e basi late cordata, *margine* maxime *subdecurrent*

lata, breviter reflexiuscule acuminata, minute diaphana areolata, *tenera*, sublaevia, margine *erecto*, nervis *binis brevibus tenuissimis obsoletis;* ramea *julaceo-imbricata*, humore squarrulosa, *obtusiuscula* minora; perich. late lanceolata, in acumen elongatum maxime reflexum producta, pallida, subcrenulata laxius tenerius reticulata; theca in ped. brevi purpureo subinclinata, arcuato-oblonga parvula badia, annulata; operc. conico brevi obtuso mammillato; perist. parvuli d. int. albidi subrugulosi angusti hiantes, ciliis 2—3 laevibus tenuissimis albidis.

Grev. Scott. Crypt. n. XX et XXXII. t. 160. — *H. Stereodon dimorphus* Brid. II. p. 581. — *H. squarrosulum* Voit. Musc. Herbipol. p. 100. — *H. brevifolium et diversifolium* Schl. — *H. exile* Vill. — *Pterogonium tectorum* A. Braun in litt. ad Bridel! *H. Stereodon tectorum* Brid. II. p. 582; in tectis rusticorum omnibus planitiei Rhenanae Suevorum ab A. Braun lectum.

Patria. Per totam Europam et in insula Terre Neuve (*Lapylaie*) Americae septentrionalis, terram sylvarum altarum umbrosarum habitans et e zona montosa usque ad inferalpinam ascendens. — *Primo vere.*

H. scito, gracili et punctulato simile, sed caracteribus accuratius designatis longe distans.

470. **H. microphyllum** Sw. (Prodr. Fl. Ind. Occ. p. 142.); *monoicum;* caulis procumbens rigidus filiformis, ramis *inaequalibus* tenerrimis remotis *vix pinnatus*, lutescens, *filis paucissimis subsimplicibus parum cellulosis obtectus, superne haud vel vix ramulosus, sed longiuscule simplex, submollis;* folia caulina squarrosulo-imbricata, *lutescentia*, parva, *haud crispata*, e basi *latiuscule cordato-ovatâ subito longiuscule acuminata substricta*, nervo *amoene lutescente valido in cuspidem excurrente*, minute *diaphane* areolata, minute papillosa, margine basi vix revoluto, superne crenulato; perich. lanceolato-acuminata longiuscula stricta pallida plicata laevia subintegerrima angustissime elongate reticulata; theca in ped. rigido aurantiaco *laevi* stricto horizontalis minute cernuo-oblonga pallida late annulata, operc. *breviter conico obtuso;* pe-

rist. d. ext. angusti lutei breves, int. flavidi solidi, ciliis binis albidis vix appendiculatis.

Hdw. Sp. Musc. p. 269. t. 69. — *H. Stereodon microphyllus* Brid. II. p. 649, excl. spec. Pensylvanicis, ad *H. varium* pertinentibus.

Patria. Jamaika, ad radices arborum: Swartz; Hispaniola: Bertero ad terram legit.

Ab *H. involvente* haud dissimili ob vestigia laudata longe refugit.

471. **H. muricolum** C. Müll.; *monoicum; H. microphyllo* simillimum, sed *distincte simpliciter pinnatum mollius sordide viride*, folia caulina late cordato-ovata, in acumen tenue brevius *distincte falcatum* producta, *viridia*, nervo excurrente, *nunquam in cuspidem excedente, viridi;* perich. *viridia haud plicata;* theca, operculum et peristomium *H. microphylli.*

Patria. Insula S. Catharinae Brasiliae, in locis umbrosis, in muris prope Destero, Mart. 1847: Pabst.

472. **H. minutulum** Hdwg. (Musc. Fr. IV. p. 90. t. 34.); *monoicum; H. scito* simillimum, sed tenerrimum et plerumque viridissimum, irregulariter simpliciter v. duplicate pinnatum; folia caulina *cordato-lanceolata* subcurvule acuminata opaca valde papillosa, margine parum revoluta; perich. lanceolato-acuminata, acumine longo reflexo, nervo subexcurrente, cellulis pallidis elongatis laxiusculis pellucidis; theca in ped. elongato laevi *horizontalis subturgide cernuo-oblonga*, annulata, aurantiaca, dein fusca, operc. conico *longe aciculari-rostrato obliquo*, perist. breviusculo tenello, interno vix hiante flavido triciliato, ciliis appendiculatis discretis.

H. Martianum Sendtner in Regensb. Denkschriften III. 1841. p. 150. — *H. Stereodon minutulus* Brid. II. p. 578 ex parte. — *H. Stereodon Virginianus* Brid. II. p. 576 e spec. Dillenianis huc pertinere videtur. — *H. Bavaricum* Voit. in Sturm Germ. II. Fasc. XIV. — Hypnum cespitosum filamentosum, minimum subflexum. Dill. Musc. p. 282. t. 36. f. 18.

Patria. Per Americam septentrionalem totam in truncis arborum et terra; „im Baierschen Hochwalde" ad

truncos pini vetustos putridos: Hubert, ad Monachium Bavariae detexit Martius. — *Auctumno.*

473. **H. muricatulum** Hmp. (Linn. XX. p. 88.); *monoicum; H. minutulo* simillimum, viridissimum, sed caulis ramis maxime tenerrimis, *brevissimis, humiditate elegantter palmato-pinnatis distincte bipinnatus;* folia caulina *minutissime* cordato-lanceolata, *vix* curvula, margine vix v. parum revoluta, nervo pallido evanido notata, opaca papillosa; perich. lanceolata, longe reflexe acuminata, tenero-membranacea pellucida margine subcrenulata, cellulis *brevibus;* theca in ped. mediocri laevi rufo *arcuato-oblonga, propter curvaturam pedunculi saepe nutans minuta,* badia, annulata, operc. curvirostro thecam superante; perist. minuti d. int. in membrana densissime reticulata, ciliis *binis tenerrimis exappendiculatis.*

Patria. Venezuela, Caracas: Moritz in Coll. Thoreyana No. 46.

474. **H. pauperum** C. Müll.; *monoicum;* laxe cespitulosum procumbens lutescens; caulis *longissime repens filiformis, in divisiones vix ullas divisus simplex,* ramulis brevissimis plerumque simplicibus *hic illic omnino deficientibus* rarius parcissime pinnulatis pinnatus; folia caulina minutissime cordato-lanceolata breviter subrecurvo-acuminata, valde opaca papillosa, nervo pallescente evanido, margine parum revoluto; perich. latiuscule lanceolata, longe substricte acuminata, pellucida, elongate laxiuscule reticulata, laevia, margine superne parce denticulato; theca in ped. rufo laevi stricto longiusculo *parum inclinata minute oblonga turgida, haud arcuata, brevis* macrostoma, annulata, operculo longe oblique conico-aciculari thecam aequante; perist. brevis angusti d. int. vix hiantes flavidi angusti, ciliis ternis hyalinis appendiculatis discretis longis.

H. muricatulum C. Müll. Bot. Zeit. 1848. p. 779.

Patria. Venezuela, prov. Merida, Vallée de Merida, alt. 6000′ in arboribus putridis, 1846. Sept., Coll. Linden. No. 989: Funck et Schlim.

Ab *H. muricatulo* Hmp. et affinibus notis laudatis certe differt.

475. **H. versicolor** Hsch. (in schedulis!); *monoicum; H. minutulo* simillimum, sed maxime tenerrimum, *indistincte remote bipinnatum valde flaccidum subconferroideum* lutescens; folia caulina siccitate crispula, multo minora, *minute hastato-acuminata, acumine reflexo;* perich. minora denticulata; theca in ped. tenuissimo longiusculo rigido laevi aurantiaco horizontalis, *minute cernuo-oblonga* annulata aurantiaca, operc. conico oblique subulato; perist. *H. minutuli.*

H. minutulum Hsch. in Drège Musc. Capens.

Patria. Prom. b. spei, ad Hangklip in cortice arborum: Mundt et Maire; in sylvis primaevis Krakakammae (Distr. Uitenhagen): Ecklon 1832. Julio.

Habitu *H. involventi* proximum.

476. **H. raphidostegum** C. Müll.; *monoicum; H. minutulo* simillimum, sed maxime tenerrimum *subbipinnatum;* folia multo minora; perichaetialia lanceolato-acuminata, acumine longissimo denticulato flexuoso, haud reflexo, subexcurrentinervia, pellucida, basi sublaxe reticulata; theca in ped. elongato tenerrimo laevi *minutissime obovata turbinata macrostoma longicolla inclinata* badia, annulata, operculo *longissime aciculari, thecam superante,* perist. *H. minutuli.*

Hypnum n. sp.? Kze. in Pöpp. Coll. IV. Pl. Chil. No. 235.

Patria. Chile: Pöppig.

477. **H. Schliedeanum** C. Müll.; *monoicum;* minutissimum *compactum* tomentosum, caulis *brevissimus simpliciter pinnulatus;* folia caulina minutissime cordato-lanceolata, *substricte breviter acuminata,* opaca, papillosa, margine parum revoluto, nervo evanido pallescente; *perich. H. pauperi;* theca in ped. elongato laevi rufo arcuato-oblonga *parva* horizontalis, annulata badia, operculo conico oblique rostrato, perist. *H. minutuli.*

H. minutulum Hsch. in Musc. Mexic.

Patria. Mexico prope Xalapa: Deppe et Schiede.

Ab *H. minutulo* notis explicatis, a caeteris congenebus caule brevissimo compacto primo adspectu distinguitur.

478. **H. eccremocarpum** C. Müll.; *monoicum; H. minutulo* simillimum, sed subbipinnatum, maxime tenerimum; folia multo minora, perichaetialia *minuta pauca ppressa, vaginam haud superantia late cordato-ovata reviter acuminata tenero-membranacea;* theca in ped. *revi* tenuissimo laevi *nutans minute urceolato-ovata,* anulata; perist. minuti d. interni ciliis *singulis* (?) appeniculatis.

H. Stereodon minutulus Brid. II. p. 578, ex parte.

Patria. Hispaniola: Bertero.

Operculum ignotum.

479. **H. leptocladum** C. Müll.; monoicum, late dense espitosum; caulis repens bipinnatus subbiuncialis, inferne omentosus brunneus, foliolis squamaeformibus minutis obectus, pinnis brevibus patentibus remotiusculis; folia aulina late cordata acuminata subsquarrosa, ramea cordato-ovata acuta, omnia integerrima, ob papillas crenuata, mediotenus uninervia, punctate dense areolata; perich. appressa pallida elongato-acuminata; theca in ped. gracillimo laevi erecta ovata subaequalis, operc. conico rostellato; perist. d. ext. opaci, int. ciliis singulis interpositis. †.

Leskea leptoclada Tayl. Lond. Journ. of bot. 1847. p. 339.

Patria. Prope Quito Andium: W. Jameson, Nov. 1846.

H. Haplohymenio quoad contextum auctoris affine, sed ramis magis distantibus, caule magis squamuloso, theca breviore et operc. rostrato differre dicitur.

β. Pedunculus scaber.

480. **H. involvens** P. B. (Prodr. p. 65.); *monoicum; H. minutulo* simillimum, sed rami *remote et crispate foliosi,* ramulis *remotis paucis v. nullis binatim v. simpli-*

citer pinnati; folia caulina minute cordato-lanceolata, subcurvule breviter acuminata valde opaca, nervo pallido ad medium evanido, margine tenuiter revoluta crenulata; perich. *H. raphidostegi*; theca in ped. longiusculo *ubique scaberrimo* rufo horizontalis, *minutissime obovata*, annulata, operc. conico *longe aciculari thecam* superante; perist. *H. minutuli*, sed ciliis ternis *conflatis exappendiculatis*.

Leskea Omalia involvens Brid. II. p. 326. — *Leskea involvens* Hdw. Musc. Fr. IV. p. 27. t. 11. — *H. gratum* Schw. et Brid. ex parte.

Patria. In Antillis majoribus, ubi in Jamaika primus legit Swartz et in minoribus: Bertero, Crüger. Guiana: Richard, Kegel. Peruvia: Humboldt et Bonpland, Pöppig. Venezuela, Cumbre de Caracas, alt. 3000 pedum: Wagner.

481. **H. gratum** P. B. (Prodr. p. 64); *monoicum?* caulis pinnatus, ramis distiche pinnatis, pinnulis simplicibus alternis, folia surculorum ovato-lanceolata, apice subulata, siccitate crispa, nervo integro notata, pinnularum subovata majora acuta; perich. lanceolato-subulata; theca in ped. scabro inclinata, operculo longe rostrato acuminato. †.

Schw. Suppl. III. I. 2. t. 228? — Brid. II. p. 579.

Patria. In Africae regnis Oware et Benin legit *Palisot de Beauvois.*

Ex animadvers. auctoris ab *H. minutulo* simillimo differt: caule longiore teneriore elegantiore. Pedunculo quoque scabro recedit. Ab *H. involvente* caule constanter dense bipinnato densifolio et operculo breviori differre videtur.

Sectio VII. **Hypnodendron.** Caulis *basi indivisa foliis minutis remotis squamaeformibus obtecta, superne dendroideo-ramosus*; rami sparsifolii; folia plus minus ligulate oblonga v. acuminata elliptice v. lineari-areolata laevia.

Climacia generis *Neckerae* iterum referentia.

Subsectio I. **Flabellaria.** Caulis basi indivisus, apicem versus autem *sensim in ramos* toto ambitu caulis dispositos fasciculatos *divisus*.

a. *Cellulae alares vesiculaeformes.*

482. **H. Korthalsii** Dz. et Molkb. (Ann. d. sc. nat. 1844. 2. p. 307); *dioicum;* caulis repens, ramis multis robustis erectis inferne simplicibus saepe julaceo-foliosis nudis, superne dendroideo-fasciculatim ramulosis, ramulis cuspidatis decurvatis robustis rigidissimis sordide viridibus; folia rami primarii subjulacei late ovata piliformi-acuminata squamaeformia; ramulina subsquarroso-patentia, e basi subpanduraeformi oblongâ in acumen lanceolatum robustum latiusculum, margine serratum vix involutum incrassatum producta, cellulis ellipticis pallidis basi flavidis, alaribus auriculas magnas planiusculas sistentibus septenis longis lunatis plerumque articulatis flavidis, nervis vix conspicuis brevibus pallidis; perich. latissime vaginantia, in acumen longissimum loriforme valde serratum subtortum producta, basi laxe flavide reticulata; theca in ped. longissimo purpureo laevi, ramo inferiori subnudo inserto, crasso, apice arcuato horizontalis magna turgide oblonga brevicolla, badia, operc. conico-acuminato acuto majusculo; perist. robusti d. ext. fusci, linea media valde exarati, dense trabeculati, int. late lanceolati flavidi, ciliis ternis aequilongis remote articulatis.

Hypnum trismegistum Mont. in Lond. Journ. of bot. 1844. p. 633 et Ann. d. sc. nat. 1845. 4. p. 87. — *H. ciliato-serratum* Nees Hb.

Patria. Java, ubi primus legit Bélanger, dein Junghuhn et Korthals; e provincia Buitenzorg specimina copiosa et pulcherrima misit Miquel.

Species distinctissima spectabilis.

483. **H. lancifolium** C. Müll.; caulis erectus vagans, basi subsimplex, apice fasciculatim ramosus, 2—4 pollicaris, ramis compressis; folia laxe imbricata, longiuscule lanceolato-acuminata planiuscula sed implana, margine basi vix involuto, apicem versus remotiuscule serrato, erecto, nervis binis obsoletis brevissimis, cellulis an-

gustissime linearibus densissimis lutescentibus, alari magnis angustis elongate rectangularibus vesiculaefor bus amoene flavidis utrinque densis.

Neckera lancifolia Harv. in Hook. Ic. Pl. Rar. t. 21. f. 5: diagnosi in Lond. Journ. of bot. 1840. p. 14.

Patria. Nepal: Wallich.

Quoad caracteres expositos ab *H. Korthalsii* vix, ramis vix cuspidatis compressiusculis differt. Fruc adhuc ignotus, differentias forsan praebeat.

484. **H. rigidum** Hsch. et Reinw. (Nov. Act. Ac Caes. Leop. XIV. II. Suppl. p. 731.); caulis decumb quadriuncialis vage ramosus rigidus, ramis cuspidatis rum ramulosis rigidis foliosis atro-fuscis; folia imbr erecto-patentia v. patentia, apice ramorum ramulorum appressa et cuspidem formantia; caulina et ramea cordato-ovata, subito in acumen elongata, concava, pra medium serrata, enervia (?), lurida; ramulina v. oblonga, grosse serrata; omnia dense lineari-areolata

Patria. Java, monte Gjigurre: Reinwardt.

H. Korthalsii simillimum videtur; an et synonym latet.

b. *Cellulae alares quadratae.*

α. Nervus laevis vel nullus.

485. **H. myurum** Poll. (Pl. Pal. III. 1777! N f. 8.); *dioicum;* caulis repens flagelliferus; di ascendentes late laxeque cespitosae, ramis curvatis turgidis robustiusculis parce ramulosis pallescentibus gidiusculis, apice gemmaceis, fastigiatim dispositis perne subdendroideae, inferne foliis minutis sursum joribus erecto-confertis obtectae, subhumiles; folia lina laxe conferta, *cymbiformi-oblonga*, *obtusiuscula* longius acutius acuminata, *cymbiformi-concava*, marg erecto, interdum indistincte convolutaceo, *superne* *ticulato*, ad alas infimae basis ventricose impressas vexo, nervo unico, interdum subfurcato, obsolete diato latiusculo, valde complanato laevi pallido, co

anguste oblongis v. ellipticis brevibus pallidissimis plus minus incrassatis, alaribus minute incrassate quadratis intus granulosis, saepius flavidis; perich. pauca appressa longius acuminata *strictissima*, vaginantia, infima basi laxius reticulata, obsoletissime nervosa, subintegra; theca in ped. brevi laevi nitente tortili rubro *erecta*, cylindraceo-ovalis v. oblonga, rubra nitida, late annulata, operc. conico breviuscule oblique rostrato concolori; perist. fragilis laevissimi pallidissimi d. ext. robustiusculi, intus cristati, int. teneri hiantes, ciliis rudimentariis v. binis brevibus.

Isothecium myurum Brid. II. p. 367. — *Hypnum myosuroides* Hdw. Musc. Fr. IV. p. 20. t. 8. — *H. myosuron* Gmel. Syst. Nat. II. p. 1346. — *H. curvatum* Fl. Suec. 1798. p. 64. — *H. viviparum* Neck. Fl. Gallo-Belg. II. p. 475. — *H. tumidiusculum* Lam. Encycl. Meth. Bot. III. p. 179. — *H. alopecuroides* ej. — *H. ornithopodioides* Fl. Dan. — *H. spinosum* Sibth.? — *Leskea curvata* Voit. Musc. Herbip. p. 72. — *L. incurvata* Wahlenb. Fl. Lapp. p. 368. — *L. myosuroides* Hdw. Fund. Musc. II. p. 93. — *L. vivipara* Timm. Prodr. Fl. Megap. No. 808. — *L. prolifera* Lumnitzer. Fl. Poson. No. 1069. — Hypnum myosuroides, crassius, capsulis erectis. Dill. Musc. p. 316. t. 41. f. 50.

H. Mosquitense Brid. Sp. Musc. II. p. 147. vel *Isothecium myurum β. Mosquitense* ej. Br. univ. II. p. 269 e spec. duobus maxime incompletis, in ora Mosquitensi Africae collectis huc pertinet; an patria autem recta inscripta sit, dubitamus. — *Isoth. myurum γ. filiforme* l. c. e speciebus quatuor diversis compositum est! — *Isoth. myurum δ. ramosissimum* l. c. vel *H. ramosissimum* Brid. Mant. Musc. p. 184 in Hb. auctoris non vidimus.

Patria. Per totam Europam, e planitie usque ad zonam infraalpinam ascendens, ad terram, saxa arborumque radices. — *Vere.*

486. H. myosuroides L. (Sp. Pl. p. 1596.); *dioicum; H. myuro* simillimum, sed partibus omnibus minoribus; folia caulina *anguste ovato-lanceolata, acuminata, ubique serrulata, haud cymbiformia;* perich. *squarroso-reflexa*, subdenticulata; theca *subinclinata*, operculo breviori obtusiori.

Isothecium myosuroides Brid. II. p. 369. — *Leskea myosuroides* Roth. Fl. Germ. I. p. 464. — *Hypnum myosurum* Schrad. Syst.

Samml. Crypt. Gew. I. p. 17. No. 79. — *H. tenuius* VIII. Pl. Dauph. III. p. 904. — H. myosuroides, tenuius, capsulis nutantibus. Dill. Musc. p. 317. t. 41. f. 51.

β. stoloniferum; robustius procumbens, divisiones pleramque depressae humiles confertae, folia robustiora. *H. stoloniferum* Hook. Musc. Exot. tab. 741 — *Isothecium stoloniferum* Brid. II. p. 371.

Patria. Per totam Europam, locis umbrosis praesertim humidis, e planitie ad zonam inferaalpinam ascendens, terram, radices arborum saxaque habitans. Rarius quam *H. myurum.* Var. *β.* in plaga occidentali Americae borealis ubi Menzies 1791 legit; ibidem ad Cap. Dissapointement prope flum. Columbia nuncupatum: Hk. Hmp.

487. **H. circinans** Schimp. (in litt. ad Sauter!); cespites densi, rigidi, e pallide flavescenti virides et subfuscescentes, parum splendentes, latiusculi; caulis secundarius ultrapollicaris suberectus crassiusculus teres, superne fasciculato-dendroideus, ramis parum vel iterum fasciculatim divisis crassioribus *julaceis turgidis, utrinque attenuatis, brevibus, acutis, apice incurvis vel circinantibus;* folia caulina arcte imbricata ventricoso-ovata, concava, acuminata, enervia, integerrima, primum flavescentia, dein fuscescenti-viridia, rigida; perich. subemersa, angustiora, longius acuminata, dense imbricata; thecae in ped. caulem plus minus superantibus laevibus fuscis erectae *elongatae cylindricae* castaneae ore subdilatatae. †.

Isothecium circinans Sauter in Regensb. Diar. Bot. 1850. p. 444.

Patria. In alpibus Pinzgoviae, in der Oede, einem Seitenthale des Wetterthales, alt. 4000 pedum 1838 Sauter sterile et m. Julii 1848 fértile detexit „am Fusse der, den Thalboden über dem Fuscherbade bedeckenden, Gneussblöcke", in solo lapidoso, alt. 4000′ thecis deoperculatis.

Ab *H. myosuro* affini ex animadv. Sauteri notis typographice declaratis foliisque longius acuminatis differt.

488. **H. pulvinatum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 555.); caulis humilis divisus, pinnatim

ramosus; folia imbricata erecto-patentia, ramulina subsecunda, obovata acuminata concaviuscula enervia integerrima; perich. squarrosa; theca in ped. laevi ovato-cernua. †.

Patria. Dusky-Bay Novae Seelandiae: J. D. Hooker.

Ex auct. *H. myosuroidi* subsimile, sed minus. An huc revera ducendum sit, dubii sumus.

489. **H. alopecuroides** Hook. (Ic. Pl. Rar. t. 24. f. 5.); caulis primarius repens, secundarius erectus, basi brevi indivisa, foliis squarroso-reflexis obtecta, sursum ramis brevibus simplicibus v. elongatis parce iterum divisis 1—2 pinnatus, e viridi aureus, altiusculus, vix compressus, durus; folia caulina squarrosulo-imbricata, incurva, humore laxe patula, e basi ovata oblongo-acuminata, margine basi parum reflexo, apice denticulato, utrinque plica unica e basi ad medium progrediente, cellulis longioribus pallidioribus laxioribus (quam laminae ceterae e cellulis minutis rotundis firmis lutescentibus compositae) *praedita*, nervo valido ante apicem evanido.

Cum diagnosi in Lond. Journ. of bot. 1840. p. 20.

Patria. Nepal: Wallich. Amic. Sendtner quoque ex India Orientali communicavit.

β. Nervus dentatus.

490. **H. alopecurum** L. (Sp. Pl. p. 1594.); *dioicum*; caulis primarius longe repens, secundarius indivisus angulatus longiusculus, superne in ramos *compressiusculos* attenuatos flagelliformes *subpinnatim divisos* subincurvos subdistichos *pluries pinnatim partitus*, basi foliis squamaeformibus appressis apicem versus patentioribus late ovato-acuminatis pallidis obtectus; folia ramulina laxe imbricata *ovato-lanceolata acuta*, *caviuscula*, margine erecto, inferne denticulato, superne et apice argute serrato, nervo valido albido ante apicem dissoluto canaliculato, dorso parce dentato, cellulis ubique incrassate rotundatis pallidis firmis *virentibus*, alaribus vix conspicuis

parum impressis obscuris flavis incrassate quadratis minutis; perich. late vaginantia, *acumine breviter loriformi latiusculo apice serrulato*, margine recto, *e cellularum hyalinarum serie unica plerumque limbato*, nervo obsoleto, cellulis longioribus, basi laxiusculis; theca in ped. brevi valido recto laevi rubro inclinata, turgide ovalis exannulata rutilans, firma, operculo turgide conico rubro oblique subulato; perist. d. ext. lutei, ad latera pallide prominentes, int. flavidi angusti, valde hiantes, ciliis ternis interjectis albidis.

Brid. II. p. 444. — *H. Arbuscula* Brid. (non Hooker!) Musc. Rec. II. II. p. 96. — *Isothecium alopecurum* Spruce in Musc. Pyr. No. 82. Ann. and. Mag. of Nat. Hist. 1849. — Hypnum dendroides, obscurius, setis et capsulis brevioribus subnutantibus. Dill. Musc. p. 315. t. 41. f. 49.

Patria. Ad loca humida lapidosa umbrosa regionis montosae per totam Europam et Americam septentrionalem, regionibus arcticis exclusis, sed haud vulgare et raro fertile. — *Auctumno et vere.*

Ab *H. neckeroide* vestigiis accuratius expositis distat.

491. **H. Alleghaniense** C. Müll.; *hermaphroditum*! *H. alopecuro* simillimum, sed *ramis turgidis robustis.*

H. neckeroides Hook. et Wils. in Drumm. Musc. Amer. No. 119!

Patria. America septentrionalis, in saxis irrigatis, per montes Alleghanies vulgare: Sullivant; primus legit Drummond.

492. **H. neckeroides** Hook. (Musc. Exot. t. 58.); *dioicum;* caulis primarius repens, secundarius rectus, indivisus breviusculus, foliis squamaeformibus late ovatis obtusis acutis subintegris turgidis remotis obtectus, superne ramis *simplicibus flagelliformibus turgide foliosis* curvatis *simpliciter pinnatus;* folia laxe imbricata, *turgide late ovato-oblonga obtusa, valde concava, apice subincurvo* grosse serrato, margine erecto, basi parum convexo subdenticulato, nervo lato, laxe celluloso, canaliculato, ante apicem obtuse abrupto, dorso dentato, cellulis *grossius rotundis lutescentibus;* perich. late vaginantia *reflexe acu-*

minata acuta, cellulis et limbo marginis *H. alopecuri*, *enervia*; theca in ped. perbrevi valido rubro inclinata turgide ovata brevis firma; perist. *H. alopecuri*.

H. Neckera Schwägr. Suppl. III. II. 2. t. 288. — *Isothecium neckeroides* Brid. II. p. 373.

Patria. Dusky-Bay Novae Seelandiae: Menzies 1792.

Ab *H. alopecuro* caracteribus explicatis distinguitur.

Incertae sedis.

493. **H. Ruthenicum** Weinm. (Bull. Soc. imp. d. Moscou 1845. p. 485.); caulis primarius longe et late repens nigrescens; divisiones remotae erectae, inferne nudae, superne dendroideae fasciculatim divisae, brunneae nitentes, madefactae fere piceae, inferne foliis squamaeformibus late ovatis plus minus apiculatis involutis integerrimis hyalinis amplexicaulibus enervibus v. valide nervosis, apicem versus minoribus; rami erectiusculi rigidi pinnati v. bipinnati, ramulis gracilibus valde attenuatis fere filiformibus; folia caulina undique imbricata erecto-patula, e latiuscula basi lanceolata, a medio ad apicem usque crebre serrata, utplurimum bistriata, nervo crassiusculo obscuro colorato, infra apicem evanido. †.

Patria. Sibiria, insula Sitkha: Hb. Acad. Sc. Petrop.

Subsectio II. **Comatulina.** Caulis summo apice tantum in comam elegantulam dendroideam divisus.

a. *Caulis foliis squamaef. patentibus, tomentosus.*

α. Nervus laevis.

494. **H. comosum** La Bill. (Pl. Nov. Holl. II. p. 107. t. 253. f. 2.); dioicum; *cespites maxime tomentosi compacti fusco-lutescentes;* caulis breviusculus, sed prolificationibus pluribus dense comosis elatus; rami *rigidissimi* breves horride foliosi erecti densissime approximati parce dichotomi comam verticillatam densam efficientes; folia caulina et ramulina sicca et madefacta valde patentia rigidissima, e basi *maxime dilatata et auriculata brevissima*

amplexante subito anguste et longissime lanceolato-acuminata, nervo *crassissimo fusco cuspidem elongatam crassam strictam remote dentatam fuscam totam occupante, dorso laevi*, margine ad auriculas e cellulis alaribus laxissimis fuscidulis magnis multis reticulatas valde revoluto, apice serrulato, cellulis angustissime linearibus densissimis luteis firmis; perich. e basi longe vaginante lanceolata *longissime cuspidata subintegra*, margine erecto, nervo excurrente, cellulis basi longissimis laxis fuscidulis; theca in ped. valido purpureo laevi mediocri pendula, sicca striata, cylindraceo-oblonga brevicolla, firma, operc. turgide conico longe oblique aciculari, annulo tenero; perist. *H. Junghuhnii.*

Schw. Suppl. I. II. p. 263. t. 91. — *Isothecium comosum* Brid. II. p. 374. — *Bryum dendroides* L. Jun. Meth. Musc. p. 34. t. 1. f. 2. — *Mnium dendroides* P. B. Prodr. p. 74.

Patria. Insula Van Diemen prope Novam Hollandiam: La Billardiere. Insulae Aucklandi: J. D. Hooker, cujus speciminibus folia sunt cellulis alaribus plerumque incrassatis vix auriculatis.

Notis expositis species distinctissima.

β. Nervus serratus.

495. **H. Sieberi** C. Müll.; *dioicum;* cespites *laxe cohaerentes parce tomentosi virescentes;* caulis *semel vel bis* comosus; coma *flaccida, e ramis cirrhatis apice subcuspidato curvato praeditis* crassis distinctius dichotomis composita; folia ramulina anguste *lanceolato-acuminata*, acumine *brevi lato grosse serrato et areolato*, nervo valido *viridi, acumen haud omnino occupante planato, dorso remote et viridi-dentato*, carinata, margine ubique erecto subincrassato inferne integro, superne grosse serrato, cellulis incrassatis anguste linearibus, alaribus *vix conspicuis* fuscidulis; perich. *H. comosi*, sed subula *remotissime grosse dentato*, basi flavida.

Hypnum comosum Hsch. in Sieb. Musc. Nov. Holl. No. 4.

Patria. Nova Hollandia: Sieber.

Fructum non vidimus. Ab *H. comoso* notis laudatis onge differt.

496. H. divaricatum Hsch. et Reinw. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 723. t. 40.); *dioicum;* cespites laxe cohaerentes; caulis indivisus breviusculus tomentosus, coma unica vel prolificatione duplicata ornatus, ramis cirrhatis curvatis *gracilibus* dichotome divisis *laxifoliis* pallide virentibus; folia ramulina *patiuscule lanceolata longius acuminata*, teneriora, nervo dorso serrato, *tenui*, margine *haud incrassato tenero*, *e basi jam serrato;* perich. *H. Sieberi;* theca in ped. purpureo laevi longiusculo valido tortili subpendula, anguste cylindracea longiuscula brevicolla macrostoma, siccitate valde striata, operc. turgide conico, longe oblique subulato; perist. *H. Junghuhnii.*

Patria. In monte Klabat Celebes insulae et in monte Sedé Javae: Reinwardt. E prov. Buitenzorg Javae misit Miquel.

Ab *H. Sieberi* proximo notis laudatis differt.

b. *Caulis foliis squamaef. patentibus reflexis, nudus.*

497. H. Reinwardti Hsch. (Nov. Act. Acad. Caes. Leop. XIV. II. Suppl. p. 722. t. 41.); *dioicum; H. Junghuhnii* simillimum, sed caulis foliis squamaeformibus *patentissimis reflexis* late ovatis acuminatis grosse *inaequaliter eroso subduplicato*-serratis, nervo tenui *in cuspidem longiusculam serratam producto praeditis, pallidis, laeris* obtectus; folia ramulina *e basi anguste ovatâ lanceolato-acuminata, acumine breviter valide cuspidato,* nervo *viridi*, margine erecto, dentibus *pallidis* simplicibus duplicatis, cellulis anguste linearibus longiusculis luscentibus, *haud conflatis;* perich. longissime acuminata, acumine flexuoso, nervo ad medium evanido; theca in ped. mediocri v. longissimo flexuoso *erecta longicolla* cylindraceo-oblonga, haud cernua, operc. turgide convexo, longissime flexuoso subulato; perist. *H. Junghuhnii.*

Schw. Suppl. III. I. 1. tab. 223. — *H. orthocarpon* Nees in schedis!

Patria. In Malabaria et Java: Reinwardt, Zollinger No. 1733!

498. **H. Menziesii** Hook. (Musc. Exot. t. 33.); *dioicum;* caulis primarius repens tomentosus, secundarius altiusculus angulatus ater validus nudus, foliis squamaeformibus *reflexis late ovato-acuminatis integris,* e cellulis angustissime linearibus conflatis pallidis areolatis, basi fuscis obtectus, superne *in comam prolificatione plerumque duplicem,* ramis *densifoliis breviusculis obtusis* pallide lutescentibus splendentibus densam dendroidem divisus; folia ramulina densiuscule conferta, anguste ovato-lanceolata carinata, margine erecto, dentibus simplicibus pallidis inaequalibus argute serrulato, nervo tenui carinato in cuspidem brevissimam excedente dorso argute serrato, e cellulis angustissime linearibus pallidis subscariosis areolata; perich. lanceolata longissime acuminata, pallida, apice denticulata, basi fusca, nervo tenuissimo obsoleto excurrente; theca in ped. longissimo valido flexuoso pendula magna cylindraceo-oblonga brevicolla *laevissima estriata ochracea,* operc. *conico acuto recto brevi* fusco; perist. robusti d. int. flavi longissime subulati, basi hiantes, ciliis aequilongis teneris interjectis.

Schw. Suppl. III. I. 1. t. 222. — *Isothecium Menziesii* Brid. II. p. 376.

Patria. Dusky-Bay Novae Seelandiae: Menzies 1791 ad terram legit.

Species pulcherrima, notis laudatis ab omnibus affinibus facillime discernibilis.

c. *Caulis foliis squamaef. appressis, nudus.*

499. **H. Junghuhnii** C. Müll.; *dioicum;* caulis primarius repens, secundarius *longissimus* erectus crassus angulatus, inferne foliis squamaeformibus appressis late ovato-acuminatis *intense fuscis grosse serratis firmis* remotis obtectus ater, basi tomentosus, apice ramis per-

multis subcompressis attenuatis valde fasciculatim pinnatis flexuosis *lutescentibus* splendentibus in comam pulcherrimam *dilatatam* laxam congestis, rigidis; folia caulina remota, e basi rotundatâ ovato-lanceolata, carinata, margine erecto, dentibus *fuscis* simplicibus *vel duplicatis ubique grosse* serrato, nervo *fusco* excurrente, dentibus *fuscis* remotis superne grosse serrato, cellulis anguste linearibus brevibus *conflatis lutescenti-pallidis, firmis scariosis*, alaribus vix ullis *intense fuscis* minute quadratis; perich. pauca appressa, e basi late vaginante subito longissime flexuose acuminata, elongate laxe sed firme reticulata, *intense fusca*, nervo tenui, in cuspidem denticulatam excurrente; theca in ped. mediocri valido atro-rufo laevi apice arcuato pendula longe cylindraceo-oblonga subcernua brunnea, sicca striata, operc. turgide conico longe oblique subulato; perist. robusti d. ext. latissime lanceolati lutei, longe subulati pallidi, int. in membr. alta pallida lati, maxime hiantes, ciliis 3—4 longis albis tenerrimis nodosis.

Patria. Sumatra, in cacumine montis Lubu Radja terrae nationis Batta dictae, elev. 5850 pedum: Junghuhn 1842.

Hypnorum omnium gigas et decus! Ab *H. spininervio* simillimo notis cursive impressis differt.

500. **H. spininervium** Hook. (Musc. Exot. t. 29.); *H. Junghuhnii* simillimum, sed *humilius et tenerius*, ramis *pallide viridibus* in comam *minorem* congestis; folia caulina squamaeformia late ovato-acuminata *tenera subintegerrima;* ramulina *pallida mollia*, dentibus *simplicibus pallidis brevius* serrata, cellulis angustissime linearibus, *haud conflatis;* perich. pallidius fusca; caetera *H. Reinwardti.*

Brid. II. p. 396. — Schw. Suppl. III. II. 1. t. 258.

Patria. Dusky-Bay Novae Scelandiae: Menzies 1790. E Nova Hollandia habuit Palisot de Beauvois, cujus specimina examinavimus.

501. **H. marginatum** Hook. et Wils. (Lond. Journ. of bot. 1844. p. 554.); caulis erectus dendroideus fasciculatim ramosus; folia laxe subbifariam imbricata erecto-patentia ovato-oblonga concaviuscula marginata serrulata nervo excurrente dorso spinuloso; theca cernua cylindrica curvula sulcata, operculo rostrato. †.

Patria. Insel-Bay Novae Seelandiae: J. D. Hooker.

Ab *H. spininervio*, ex auct. simili, foliis remotioribus obliquis obsoletius serratis, distincte marginatis angustis reticulatis crassinervibus differt.

Hypna delenda.

1. **H. rubricaule** Brid. II. p. 542 ex insula Melville. In Hb. Bridel. ramulus tenerrimus rubricaulis maxime imperfectus sub nomine illo asservatus est, cujus locus inter species bonas certus intelligi nequit. Quid est, cur auctores tam multi in specimina pessima species suas novas condant?

2. **H. dorsale** Brid. II. p. 543 inter *H. andicolum* Andium collectum ut species praecedens delendum.

3. **H. carinatum** Scop. Fl. Carn. ed. II. n. 1307 et Brid. II. p. 544; mentiente Bridel forsan ad *Neckeram repentem* revocandum.

4. **H. polyanthos** Brid. II. p. 541. — *H. confertum* P. B. Prodr. p. 62.

5. **H. longisetum** Brid. II. p. 542. — *H. longiflorum* P. B. Prodr. p. 65; quoad Bridel probabiliter *H. serpentis* varietas.

6. **H. alternans** Brid. II. p. 542 e Nova Hollandia.

7. **H. tumidiusculum** Lam. et Dec. Syn. Fl. Gall. p. 109 et Brid. II. p. 543, ubi *H. myuri* varietas dubie indicatur.

8. **H. xerampelinum** Villars in Pl. Dauph. III. p. 902 et Brid. II. p. 544, ubi ad *H. aduncum* probabiliter pertinens declaratur.

9. **H. ambiguum** Vill. Pl. Dauph. III. p. 904 et rid. II. p. 545, sec. Bridel ad *H. populeum* revocan- ım est.

10. **H. Juliani** Brid. II. p. 545. — *H. capillaceum* ill. Pl. Dauph. III. p. 907. An *H. dimorphum?* ridel!

11. **H. pallescens** Vill. l. c. p. 909. et Brid. II. p. 16; ratione Bridelii forte *H. brevirostre.*

12. **H. tenuissimum** Vill. l. c. p. 905 et Brid. II. p. 16; sec. Bridel forsan *H. confervoides vel Neckera fili- rmis.*

13. **H. pygmaeum** Vill. l. c. p. 909 et Brid. II. p. 16. An *H. nervosum?* Bridel quaesivit.

14. **H. catenatum** Vill. l. c. p. 909 et Brid. II. p. 17. Sp. obscurissima.

15. **H. flagellare** Vill. l. c. p. 910 et Brid. II. p. 17. An *H. viticulosum* vel *attenuatum*, latet.

16. **H. sepultum** Vill. l. c. p. 912 et Brid. II. p. 547. orte *H. stramineum* sec. Bridel.

17. **H. obtusum** Vill. l. c. p. 912 et Brid. II. p. 548. n *H. molle?* sec. Bridel.

18. **H. inextricatum** Brid. II. p. 548. — *H. intri- tum* Vill. Pl. Dauph. III. p. 914. E Bridel ad *H. con- rtum* vel *praelongum* pertineat.

19. **H. nanum** Vill. l. c. p. 915 et Brid. II. p. 549.). obscurissima.

20. **H. bryoides** Vill. l. c. p. 91, sec. Bridel forte *Grimmiam microcarpam* revocandum sit.

21. **H. clavatum** Spreng. in schedis. Caulis ad *ypnum* quoddam, theca ad *Bryum capillare* per- ıet.

22. H. Raddianum Brid. II. p. 511 ad *Cryphaeas* pertinere videtur.

23. H. laxum P. B. Prodr. p. 65. — *H. Stereodon laxus* Brid. II. p. 653, e diagnosi Palisotii ad *Rhacopilum* pertinet.

SUPPLEMENTUM

AD

SYNOPSIN MUSCORUM FRONDOSORUM

UNA CUM

CONSPECTU SYSTEMATIS.

I.

USCI VEGETATIONIS ACROCARPICAE.

Classis I.

SCHISTOCARPI.

a longitudinaliter in valvulis dehiscens inoperculata.

Trib. I. ANDREAEACEAE. I. p. 5.

Gen. I. **Andreaea** Ehrh. I. p. 5.

io I. **Andreaea** Ehrh. Theca in valvulis 4 dehiscens.

A. *Folia enervia.*

nitida Hook. et Wils. I. p. 6.

Antarct. I. p. 118. t. 57.

A. turgescens Schimp. (in litteris!) dense cespi-
itro-rufa; rami teretes; folia conferta ascendendo
pproximata, sicca imbricata, humida undique paten-
ito-lanceolata, summa lanceolata, apice incurva et
ta, enervia, dorso tuberculosa; perich. late lanceo-
ngiora; theca *A. rupestris.* †.

tria. Mexico, in summo m. vulcanico „Pico de
a", altit. 14000 pedum, una cum *Grimmia fuligi-*
Liebmann.

anta, quamvis vix semiuncialis, illa *A. rupestris*
or, ramis clavatis insignis.

. **A. obovata** Thed. (Nya bot. Notiser af Anders.
. 78. t. 2.); dioica; surculi erecti compacte cespi-
itigiatim ramosi rigidi; folia enervia conferta, ovali-
a subpanduraeformia, concava, semiamplexicaulia,
acuminata, apice obtusiusculo, laevia, e basi ad-

pressa divaricata, siccitate arcte adpressa; perich. majora, oblonga, erecta, acutiuscula, apicem versus hyalino-marginata; ped. fuscus. †.

Patria. Suecia, in alpibus Herjedaliae boreali-occidentalis. — *Aestate.*

Surculi 2—3-pollicares, crassi, atro-fusci, in pulvinis magnis arcte connexi. Ceterum *A. rupestri* habitu subsimilis, attamen omnibus partibus robustior.

3. A. alpina Hedw. I. p. 7.

Patria. Norvegia, in Oesteroe praefecturae Bergensis: in Hb. Hartmanni specimina obs. Thedenius.

3b. **A. Hartmanni** Thed. (Nya bot. Notiser af Anders. 1849. p. 78. t. 1 et 2.); monoica; surculi pulvinato-cespitosi, ascendentes, ramosissimi dichotomi, molles, nigro-fuscescentes; rami apice subincrassati, surculorum longiorum subincurvi, breviorum erecti; folia caulina enervia, erecto-patentia v. patenti-subincurva, sursum crescentia, infima minima saepius putrefacta, ramea late ovata, maxime concava, contractione quasi subpandurae-formia, semiamplexicaulia, basi subimbricata, obtusa, integerrima, laevia, apice-chlorophylli defectu-rarissime hyalino-marginata, rotundato-areolata, basin versus oblonge vel lineari-areolata; perich. rameis duplo majora, ovato-oblonga v. ovata, erecta, convoluta, siccitate adpressa, obtusa v. apiculata, apicem versus plerumque hyalino-marginata; theca in ped. brevi crasso fusco solitario terminalis v. innovationibus prominentibus pseudolateralis, oblonga, apiculata. †.

Patria. Scandinavia, in saxis rivulorum alpinorum vallium Midtådalen et Nedalen Herjedaliae boreali-occidentalis. — *Aestate.*

4. A. marginata Hook. et Wils. I. p. 7.

Fl. Antarct. II. p. 396. t. 151. f. 1.

5. A. acutifolia eorum. I. p. 7.

Fl. Antarct. II. p. 396. t. 151. f. 2.

6. A. mutabilis eor. I. p. 8.

Fl. Antarct. I. p. 119. t. 57.

laxifolia cor. I. p. 8; monoica.
ntarct. II. p. 397. t. 151. f. 4.

II. **Acroschisma** J. Hook. Theca in valvulis 4—8

Wilsoni J. Hook. I. p. 11; monoica.
ntarct. II. p. 397. t. 151. f. 3.

Classis II.

CLEISTOCARPI.

Theca inoperculata disrumpendo dehiscens.

Trib. I. BRUCHIACEAE. I. p. 13.

olatio parenchymatica, basi laxior, epapillosa, densa.

Gen. I. **Archidium** Brid. I. p. 13.

alyptra thecam totam includens, dehinc dis-
ns.

. phascoides Brid. I. p. 13.

tria. In arvis collibusque arenoso-argillaceis hu-
vel uliginosis per totam Europam temperatam et
em, fide Hartmanni (Sk. Fl. Ed. V.) quoque in
E rarioribus!

. Ohioense Schimp. (nomine memoratum in Br.
Fasc. 43!); monoicum; *subramosum, gracillimum,*
conformibus; folia lanceolata subdenticulata, nervo
excedente cuspidata, carinata, pellucide reticulata;
caulinis majora denticulata, excedentinervia; theca
lateralis sessilis.

phascoides Sulliv. Musc. Allegh. Exs. No. 213. — C. Müll.
I. p. 13.

tria. America septentrionalis, in pascuis siccis
Harper's Ferry Virginiae: Sullivant.

A. phascoide notis cursive impressis differt.

Gen. II. **Ástomum** Hmp. I. p. 14.

Calyptra dimidiata.

1. **A. subulatum** Hmp. I. p. 14.

Pleuridium subulatum Br. Europ. Fasc. 43. c. tab.

2. **A. alternifolium** Hmp. I. p. 14.

Pleuridium alternifolium Brid. et Br. Europ. l. c.

7. **A. nitidum** Hmp. I. p. 17.

Pleuridium nitidum Br. Europ. l. c.

Incertae sedis.

1. **Phascum Jamesoni** Tayl. (Lond. Journ. of ... 1848. p. 187.); hermaphroditum, laxe aggregatum, ... 3-lineare intense olivaceo-viride; caulis subsimplex ... ctus, ramis attenuatis superne divisus; folia congesta ... gida erectiuscula, summa subpatentia, ex oblonga ... plexante basi subulato-setacea, ramis dimidio brev... margine plana, serrulata, nervo percurrente, apice ... rato et diaphano; theca in ped. terminali, innovation... terali, subflexuoso exserto erecta sphaerica, apice ... apiculata, sicca corrugata. †.

Patria. Monte Pichincha Andium Quitensium: Jameson, Majo 1847.

Habitu bartramioideo, foliis rigidis, theca magn... inflorescentia hermaphrodita species distinctissima. *Astomum?*

Gen. III. **Bruchia** Schw. I. p. 17.

Calyptra campanulata.

Sectio I. **Sporledera** Hmp. Theca subaequalis s. pyrifor...

5. **Br. palustris** C. Müll. I. p. 19.

Pleuridium palustre Br. Europ. Fasc. 43. c. tab. — *Phas... uliginosum* Genth. Fl. Nass. p. 146 fide Bayrhofferi!

Sectio II. **Eubruchia.** Theca exserta et longe apophys...

Trib. II. PHASCACEAE. I. p. 21.

Arcolatio parenchymatica densa chlorophyll... plus minus papillosa.

Gen. I. **Acaulon** C. Müll. I. p. 21.

Calyptra mitraeformis.

1. **A. Flörkeanum** C. Müll. I. p. 21.

Bryol. Europ. Fasc. 42. c. tab.

2. **A. muticum** C. Müll. I. p. 22.

Bryol. Europ. Fasc. 42. c. tab.

3. **A. triquetrum** C. Müll. I. p. 22.

Bryol. Europ. Fasc. 42. c. tab.

Patria. Prope Landau Bavariae Rhenanae: Gümbel. In monte „Taunus auf der grossen Aue prope Lorch" parce legisse, Bayrhoffer indicavit.

4. **A. Carniolicum** C. Müll. I. p. 23.

Phascum Carniolicum Br. Europ. Fasc. 43. c. tab.

Gen. II. **Phascum** Hmp. I. p. 23.

Calyptra dimidiata.

a. *Folia lanceolata.*

1. **Ph. crispum** Hdw. I. p. 24.

Astomum crispum Br. Europ. Fasc. 42. c. tab. — *Ph. multicapsulare* Sm. (sp. propria!) synonymum deleatur!

2. **Ph. Sullivantii** C. Müll.; *Ph. crispo* simillimum sed differt: habitu humiliori, fructibus solitariis, theca minore amoene aurantiaca nitidula, calyptra minore sporisque minoribus. †.

Astomum Sullivantii Br. Europ. Fasc. 43. p. 2. — *Ph. crispum* Sulliv. Musc. Allegh. Exs. No. 211 ex parte. In nostro exemplari hujusce operis, ab auctore nobis benevole communicati, species deest.

Patria. In agris graminosisque Virginiae: Sullivant.

3. **Ph. nitidulum** C. Müll.; praecedenti simillimum, humillimum, theca longiuscule pedunculata ovalis pallide castanea, nitida, oblique rostellata, calyptra minima. †.

Astomum nitidulum Br. Europ. Fasc. 43. Astomum, p. 3. — *Ph. crispum* Sulliv. Musc. Allegh. Exs. No. 211 ex parte.

Patria. In agris graminosisque Virginiae *Ph. Sullivantii* associatum: Sullivant.

4. **Ph. rostellatum** Brid. I. p. 24.

Astomum rostellatum Br. Europ. Fasc. 43. c. tab. — *Ch*[illegible] *weisia rostellata* Bayrhoffer in Jahrb. d. Vereins für Natur[illegible] Herzogth. Nassau 1849. 5. Heft. p. 3.

Patria. In valle „Wisperthal in der Taubenau" [illegible] tis „Taunus" copiose legisse Bayrhoffer declaravit.

5. **Ph. multicapsulare** Sm. (Fl. Brit. III. p. 11[illegible] *dioicum? Ph. crispo* simillimum, sed caulis *longior* [illegible] *cilior, apice ramulis flagelliformibus teneris divisus*; [illegible] lia caulina patula remota minuta, e basi pellucidiore [illegible] anguste lanceolata mucronata, *recurva*, margine [illegible] integerrimo, nervo breviter excedente carinato, [illegible] areolata subopaca v. pellucidiora, flexuosa; perich. [illegible] majora *erecta*, latius lanceolata, apice subincurva; [illegible] *solitaria, oblonga, in rostellum rectum longiusculum* [illegible] *ducta*, breviter pedunculata immersa.

Brid. I. p. 48. — *Astomum multicapsulare* Br. Europ. [illegible] 43. c. tab. — *Ph. crispum* C. Müll. Synops. I. p. 24.

Patria. Britannia, in argillosis humidis prope [illegible] pleton (Cheshire): Wilson, Hurstpierpoint (Sus[illegible] Mitten, prope Bedford et Clavam: Smith?

Nomen triviale „*multicapsulare*" speciem male [illegible] signat.

6. **Ph. Mittenii** C. Müll.; *monoicum et polyga*[illegible] *Ph. multicapsulari* simillimum, sed folia caulina [illegible] perich. *perpauca angusta, apice stricta*, theca minor [illegible] gis sphaerica brevius rostellata et longius pedunculata.

Astomum Mittenii Br. Europ. Fasc. 43. c. tab.

Patria. In iisdem locis cum praecedente [illegible] Hurstpierpoint: Mitten. W. P. Sch. nobiscum [illegible] vole communicavit.

b. *Folia ovalia.*

α. Theca immersa.

7. **Ph. cuspidatum** Schreb. I. p. 25.

Br. Europ. Fasc. 43. c. tab.

β. *macrophyllum*; Syn. I. p. 25. *Ph. polycarpum* [illegible] Sch. Br. Europ. Fasc. I. t. 6. p. 14. C. Müll. Syn. p. 24.

β. Theca exserta.

8. **Ph. subexsertum** Hook. I. p. 26.

9. **Ph. curvicollum** Hdw. I. p. 27; androgynum et hermaphroditum!

Br. Europ. Fasc. 43. c. tab.

10. **Ph. rectum** Sm. I. p. 27.

Br. Europ. Fasc. 43. c tab.

11. **Ph. splachnoides** Hsch. I. p. 27.

12. **Ph. bryoides** Dicks. I. p. 28.

Br. Europ. Fasc. 43. c. tab.

13. **Ph. tetragonum** Harv. I. p. 29.

14. **Ph. Drummondi** Wils. (Lond. Journ. of bot. 1848. VII. p. 26. t. 1. A.); *monoicum;* folia dense imbricata, caulem *brevissimum veluti ovate bulbosum efficientia, subrotunda,* concava, nervo subcontinuo subvalido, cellulis rotundato-hexagonis densis obscuris; theca in ped. longiusculo fragilissimo erecta, *minute elliptica,* suboblique rostellata, calyptra minuta. †.

Patria. Nova Hollandia, ad Swan River: J. Drummond.

Trib. III. **EPHEMEREAE.** I. p. 30.

Areolatio folii parenchymatica ubique laxa epapillosa.

Gen. I. **Ephémerum** Hmp. I. p. 31.

Calyptra campanulata.

Sectio I. **Enervia.**

1. **E. serratum** Hmp. I. p. 31.

Br. Europ. Fasc. 42. c. tab.

2. **E. tenerum** Hmp. I. p. 31.

Br. Europ. Fasc. 42. c. tab.

Sectio II. **Nervosa.**

a. *Acaulia.*

4. **E. cohaerens** Hmp. I. p. 32.

Br. Europ. Fasc. 42. c. tab.

Patria. Anglia occidentalis: Wilson.

5. E. sessile C. Müll. I. p. 33.

Br. Europ. Fasc. 42. c. tab.

b. *Caulescentia.*

7. E. patens Hmp. I. p. 33.

Physcomitrella patens Br. Europ. Fasc. 42. c. tab. — *Genthia patens* Bayrhoffer in Jahresber. d. Ver. f. Naturk. im Herzogth. Nassau 1849. 5. Heft. p. 2.

Gen. II. **Ephemerella** C. Müll. I. p. 34.

Calyptra dimidiata.

1. E. pachycarpa C. Müll. I. p. 34.

Ephemerum pachycarpum Rabenh. Deutschl. Krypt. Fl. II. p. 85. — Br. Europ. Fasc. 42. c. tab.

Gen. III. **Voitia** Hsch. I. p. 34.

Calyptra dimidiato-cucullata, thecam superans.

1. V. nivalis Hsch. I. p. 35.

Br. Europ. Fasc. 43. c. tab.

Classis III.

STEGOCARPI.

Theca operculo dehiscens.

Subclassis I.

Acrocarpi.

Fructus terminalis, innovatione lateralis.

I. Distichophylla.

Folia in series duas rectas disposita.

a. *Exacte verticalia.*

Trib. IV. SCHISTOSTEGEAE. I. p. 37.

Gen. I. **Schistostega** Mohr. I. 38.

b. *Exacte subverticalia.*

Trib. V. DREPANOPHYLLEAE. I. p. 39.

Gen. I. **Drepanophyllum** Rich. I. 39.

c. *Folia horizontalia.*

Trib. VI. DISTICHIACEAE. I. p. 40.

Areolatio folii parenchymatica minuta; folia elamellosa.

Gen. I. **Distichium** Br. et Sch. I. p. 40.

Calyptra dimidiata; perist. simplicis dentes fissi.

Gen. II. **Eustichia** Brid. I. p. 41.

Calyptra dimidiata; perist. simpl. dentes integri.

1. **E. longirostris** Brid. I. p. 42.

2. **E. Jamesoni** C. Müll.; dioica; caulis subuncialis erectus laxe cespitosus, basi simplex subnudus tomentosus, supra vage ramosus, ramis complanatis; folia laete viridia, imbricata erecto-patentia disticha, cymbiformia s. oblongo-ovata acuta, apice incurva, complicate carinata, denticulata, nervo valido pellucido excurrente infra subdenticulato, *papillosa*, infima lanceolato-subulata cauli appressa minora; perich. caulinis dissimilia epapillosa concava arcte imbricata, interiora enervia; theca in ped. radicali laterali erecto laevi tenui viridi, dein rufescente, subaequalis obtuse et colorate costata, *basi strumosa*, spurie annulata; perist. d. declinati *late lanceolati obtusi*, *rimis axialibus pertusi*, rufescentes, vix trabeculati. †.

Cymbaria Jamesoni Tayl. Lond. Journ. of bot. 1848. p. 190.

Patria. Monte Pichincha Andium Quitensium: W. Jameson, Majo 1847. Terrestris in societate *Fissidentis turbinati.*

Ab *E. longirostri* notis cursive impressis distare videtur.

3. **E. Norvegica** Brid. I. p. 42.; dioica!

Eustichium Norvegicum Br. Europ. Fasc. 42. c. tab.

Patria. Ex America septentrionali pulcherrimam sed semper sterilem comm. Sullivant.

Trib. VII. **FISSIDENTEAE.** I. p. 43.

Areolatio folii parenchymatica; folia dorso et apice in lamellas producta.

Gen. I. **Conomitrium** Mont.

Ann. des sc. naturelles 1837. Tom. VIII. p. 250. — *Fissidens* Sect. *Hydrofissidens* Syn. I. p. 44.

Calyptra conica minuta, operculum obtegens, integra; perist. simplicis dentes superne fissi trabeculati.

Sectio I. **Octodiceras** Brid. II. p. 675. Caulis fluitans, cladocarpicus: theca in ramo proprio axillari terminalis; perist. d. breves irregulariter fissi.

A. *Caulis elongatus ramosissimus, foliis elongate ensiformibus angustis, laxiuscule reticulatis.*

a. *Fructus in ramo longiusculo.*

1. **C. Julianum** Mont. l. c. — *Fissidens Julianus* Schimp. — Synops. I. p. 44.

Patria. Stuttgart „im Brunnentroge am alten Schlosse": W. P. Sch. 1848.

2. **C. Hedwigii** Mont. l. c. — *Fissidens Hedwigii* C. Müll. Syn. I. p. 45.

b. *Fructus in ramo brevissimo.*

3. **C. Dillenii** Mont. l. c. — *Fissidens Dillenii* C. Müll. Synops. I. p. 45.

4. **C. Berterii** Mont. l. c. — *Fissidens Berterii* C. Müll. Syn. I. p. 45.

Incertae sedis.

5. **C. Capense** C. Müll.; *C. Berterii* simillimum, sed caules longissimi *apice gemmaceo-folioso incrassato falcato praediti.*

Fissidens Berterii C. Müll. Syn. I. p. 45 ex parte.

Patria. Cap. b. spei: Drège sub No. 9379. a. et b. edidit.

Sterile tantum notum.

B. *Caulis humilior, foliis brevibus, densius areolatis.*

6. **C. stissotheca** C. Müll.; monoicum, laxe cespitosum; caulis erectus, innovationibus parce dichotome ramosus; folia laxe conferta latiuscula brevia, sicca parum crispula; folia lamina $^2/_3$ producta inaequalis, ala unica in medio laminae apicalis connata acuta; l. dorsalis e basi angustissima sensim dilatata; l. apicalis lato-lanceolata obtusiuscula, nervo genuflexo rubiginoso evanido; omnes laminae integerrimae, e cellulis densiusculis mollibus robustiusculis intense viridibus pachydermibus areolatae; pedunculi in ramulis exsertis tenerrimis terminalibus vel lateralibus terminales, brevissimi tenerrimi subcarnosi, plerumque aggregati; theca minuta oblonga, deoperculata globosa, sicca rugulosa, recta, operc. conico brevi carnoso subobliquo, calyptra junior campanulata; perist. d. perbreves bifidi fugaces.

Fissidens stissotheca Hmp. in litteris.

Patria. Brasilia, prov. St. Catharina ad ripas: Blumenau, pharmacopola et colonus Hercynicus 1849 legit.

C. osmundioidi haud dissimile.

Sectio II. **Reticularia** C. Müll. — Caulis humilis terrestris acrocarpicus, foliis laxissime reticulatis; perist. d. longi angusti bifidi.

Areofissidens C. Müll. I. p. 46.

a. *Folia immarginata.*

7. **C. splachnifolium** C. Müll.

Fissidens splachnifolius Hsch. Syn. I. p. 46.

8. **C. pellucidum** C. Müll.

Fissidens pellucidus Hsch. Syn. I. p. 47.

9. **C. hyalinum** C. Müll.; laxissime reticulatum minutum maxime hyalinum, lamina apicali enervi, lamina folii vera subenervi.

Fissidens hyalinus Hook. et Wils. Syn. I. p. 47. — Sullivant. Musc. Allegh. Exs. No. 180!

b. *Folia marginata.*

10. **C. reticulosum** C. Müll.; *monoicum;* minutulum; folia 3-juga oblonga acuminata, lamina apicali folium ae-

quante *anguste marginata*, integerrima, nervo
viridi longe sub apice evanido, cellulis magnis
beis hyalinis; theca minima ovata obliqua
hic illic erecta, brunnea, operc. magno longiori,
gusto pallido, calyptra operc. tantum obtegente
perist. d. longi angusti. ☥.

Fissidens reticulosus Schimp. in litteris.

Patria. Mexico, Mirador: Liebmann.

A *C. pellucido* proximo foliis marginatis facile
guitur. Flores *C. bryoidis.*

11. **C. palmatum** C. Müll.

Fissidens palmatus Hdw. Syn. I. p. 48.

Sectio III. **Sciarodium** C. Müll. — Caulis humilis
stris acrocarpicus, foliis plus minus dense areolatis et opacis;
d. longi angusti bifidi.

a. *Elatiora.*

12. **C. osmundioides** C. Müll.

Fissidens osmundioides Hdw. Syn. I. p. 60.

b. *Tenella.*

13. **C. radicans** Mont. (Ann. d. sc. nat. 1840
p. 345 sub Fissidentis nomine interim dato!); *mon*
gregarium pusillum, siccitate crispabile subdivisum
rescens; folia 10—14-juga brevia oblonga obtusi
vix acuminata; folii lamina vera dilatata, ad $^1/_2$ prod
subaequalis; l. dorsalis basi angustissima; l. apicalis
canaliculata; omnes laminae cellulis prominentibus
tenuissime denticulatae, subopacae; nervus albulus
vescens ante apicem evanescens; theca in ped. gr
lato-ascendente tenerrimo brevi erecta, anguste ob
v. cylindrica exannulata parvula, operc. conico ro
longo recto, calyptra conica, basi sublacerata, el
cylindrica angusta; perist. d. ad medium usque in
brevia duo fissa.

Patria. Guiana, corticibus adrepit, non aute
imum arborum vivarum truncum, at vero sic excels
situm, ut ne manu quidem decerpi possit: Leprie

14. C. laxifolium C. Müll.

Fissidens laxifolius Hsch. Syn. I. p. 63.

15. C. asterodontium C. Müll.; *dioicum*, humile simplex, siccitate subfalcatum, madefactum strictum; folia 8-juga lato-*lanceolata;* folii lamina vera inaequalis, una ala medio alterius connata obtusa, brevis; l. dorsalis basi angusta, saepe supra basin enata, sensim latior; l. apicalis acuta; omnes laminae *integrae* immarginatae, parum erosae, e cellulis *crassis aequaliter hexagonis pellucide viridibus inanibus grosse areolatae*, nervo *fuscescente* sensim ante apicem evanido; folium perichaetiale intimum angustum; theca in pedunculo geniculato-ascendente cylindrico-ovalis, ore angustior, operculo conico subulato recto longo, calyptra conica, basi laciniata, tenera; perist. d. sicci *stellatim reflexi horizontales*, madefacti inflexi.

Patria. Brasilia, St. Catharina, in sylvis montosis humidis, in terra ad flumen Itajahi: Pabst m. Septbr. 1846 lgt.

A *C. radicante* proximo notis cursive impressis differt. Flos masc. terminalis; fol. perig. lamina vera parva, alis apice sinuato-rotundatis, l. dorsali supra basin enata vel subobsoleta, l. apicali acutiore.

16. C. amoenum C. Müll.

Fissidens amoenus C. Müll. Syn. I. p. 66.

17. C. serratum C. Müll.

Fissidens serratus C. Müll. Syn. I. p. 65. — *F. Wilsoni* Mont. in litteris! — *F. denticulatus*? Mont. in Musc. Neelgher.

Patria. Montes Neelgherienses: Perrottet.

18. C. Braunii C. Müll.; *dioicum; C. serrato* simillimum, simplicissimum, tenerum, lutescens, eleganter pennatum; folia 8—10 juga, siccitate vix curvata, madore strictissima, anguste lanceolata breviter acuminata, *minutissime areolata;* folii lamina ultra medium producta latior *minute denticulata;* l. dorsalis basi angusta, apicem versus latior et *minute denticulata;* nervus excurrens tenuiusculus *pallens* subflexuosus; folia perich. *ad*

laminam veram basi albescenti-marginata integra, el. elamellosa, in laminam apicalem longiusculam prod. theca in ped. *perbrevi* geniculate ascendente rubr. suberecta, minute oblonga aequalis, operc. conico ob. subulato; perist. angustum purpureum.

Patria. Java ad radices plantarum: Blume. Al. Braun.

Ex analogo *C. serrato* ad *Conomitrium* adscrip. nam calyptram non vidimus.

Gen. II. **Fissidens** Hdw.

Calyptra conico-dimidiata vel perfecte dimid. perist. dentes longi angusti bifidi purpurei.

Sectio I. **Pachyfissidens** C. Müll. I. p. 45. — Folia *dissima coriacea*, saepius e stratis cellularum compluribus co. cta, homomalla, *vix unquam crispula*, opaca.

a. *Fructus lateralis.*

1. **F. grandifrons** Brid. Synops. I. p. 46. — Fo. stratis cellularum compluribus composita.

Patria. Ex Algeria retulit Durieu; in Pyr. plantam masculam legit Spruce prope Bagnères d. gorre. Planta insulae Bourbonis species propria cri.

Flores masc. medio caulis positi, illis *F. adian.* similes, 5—8-phylli. Flores fem. ad Niagaram hucu. tantum inventi.

2. **F. glaucescens** Hsch. Syn. I. p. 51.

b. *Fructus terminalis et lateralis.*

3. **F. maschalanthus** Mont. Syn. I. p. 53.

c. *Fructus terminalis.*

4. **F. fasciculatus** Hsch. Syn. I. p. 67.
5. **F. plumosus** Hsch. Syn. I. p. 68.
6. **F. asplenioides** Hdw. Syn. I. p. 69.
7. **F. campylopus** Mont. Syn. I. p. 66.
8. **F. linealis** Br. et Sch. Syn. I. p. 46.
9. **F. ovatus** Brid. Syn. I. p. 70.

An huc certe pertinens?

Sectio II. **Eufissidens** Syn. I. p. 50. — Folia e stratis cellularum simplicibus constructa, *plus minus pellucide reticulata et mollia*, stricta, crispata vel homomalla.

A. *Fructus lateralis.*

10. **F. taxifolius** Hdw. Syn. I. p. 50.

11. **F. subbasilaris** Hdw. l. c.

12. **F. adiantoides** Hdw. Syn. I. p. 51.

13. **F. polypodioides** Hdw. Syn. I. p. 52.

Patria. Martinique. Caulis interdum ramosus.

14. **F. Oerstedianus** C. Müll.; *dioicus; F. polypodioidi* proximus, sed caulis frondiformis *latissimus*, superne saepius maxime ramosus, folia *maxime latissima, obtusissime acutata* apice remote parcissime dentata; theca in ped. *geniculato-flexuoso-ascendente horizontalis subcylindraceo-oblonga longior*, dentibus longis regulariter bifidis intense purpureis.

Patria. America centralis, Costa Rica, inter 5000—8000′ elev., mensib. Febr. 1847 legit A. S. Oersted.

Operculum et calyptram non vidimus. *F. polypodioides* theca vix inclinata obovata brevi et fronde multo angustiore primo visu distinguitur.

15. **F. anomalus** Mont. l. c. p. 53.

16. **F. filicinus** Dz. et Molkb. l. c. p. 70.

B. *Fructus lateralis et terminalis.*

17. **F. serrulatus** Brid. Syn. I. p. 69.

C. *Fructus terminalis.*

1. *Folia pellucide hexagono areolata laevia.*

a. *Folia marginata.*

α. Inflorescentia hermaphrodita.

18. **F. Zollingeri** Mont. Syn. I. p. 47.

β. Inflores. monoica.

19. **F. bryoides** Hdw. Syn. I. p. 58.

20. **F. incurvus** Schw. Syn. I. p. 58.

F. gracilis Brid. II. p. 700. — *Skitophyllum gracile* La Pyl. Journ. Bot. Desv. 1813. n. 5. t. 36.

β. fontanus; caulis longior robustior polyphyllus; folia latiora, limbo ante apicem distincte evanido, apice distinctius denticulata; theca erectior, basi minus strumoso-incrassata et minus arcuata. *F. crassipes* Wilson in Br. Europ. Fasc. 42. c. tab. — *F. fontanus* Schimp. in Sprucei Musc. Pyr. No. 316. — Ob formas intermedias, thecam erectam et humore semper plus minus inclinatam praebentes, a *F. incurvo* nunquam separari potest, sed forma spectabilis.

21. **F. submarginatus** Bruch. Syn. I. p. 56.

22. **F. intermedius** C. Müll. Syn. I. p. 56.

γ. Infloresc. dioica.

23. **F. cuspidatus** C. Müll. Syn. I. p. 48.

24. **F. Kegelianus** C. Müll. Syn. I. p. 49.

25. **F. minutulus** Sulliv. Syn. I. p. 56.

Mem. of the Americ. Acad. of Arts and. Sc. III. 1846. p. 58. t. 2.

26. **F. remotifolius** C. Müll. Syn. I. p. 60.

27. **F. leptophyllus** Mont. (Ann. d. sc. nat. XIV. 1840.); *dioicus;* caulis humilis procumbens, simplex v. innovando ramosus, *flaccidissimus;* folia subvigintijuga laxe imbricata *flaccida, latiuscule scalpelliformia;* lam. folii vera ad medium producta, una ala medio laminae apicalis connata obtusa, *infima basi limbo angustissimo albido tenerrimo parum marginata;* l. dorsalis ad basin folii latiuscule enata; l. apicalis *late lanceolata obtusiuscula,* una cum l. dorsali immarginata; omnes laminae e cellulis pellucidis hexagonis parvis *tenerrimis* reticulatae, *dilute virentes, cellulis parum prominentibus vix denticulatae,* nervo crassiusculo flavido ante apicem evanido; theca in ped. brevi flavido erecta oblonga, operc. e basi convexa breviter curvirostro; perist. d. purpurei, in crura inaequalia duo apice pallida fissi.

Patria. Guiana, ad terram nudam in sylvis humidis montosis Kau: Leprieur m. Maji 1838.

Calyptra ignota procul dubio dimidiata. Notis cursivè impressis species distinctissima.

b. *Folia immarginata.*

α. Folia rotundato-obtusa.

28. F. obtusifolius Wils. Syn. I. p. 64.

Musc. Allegh. Sullivant. Exs. No. 181.

β. Folia lanceolata.

†. *Infloresc. monoica.*

29. F. oblongifolius Hook. et Wils. Syn. I. p. 62.

30. F. Taylori C. Müll. Syn. I. p. 65.

31. F. Bloxami Wils. Syn. I. p. 66.

Bryol. Europ. Fasc. 42. c. tab.

Patria. Heerstpierpoint (Sussex) et in aliis locis Angliae occidentalis: Wilson, Mitten.

††. *Infloresc. dioica.*

32. F. pygmaeus Hsch. Syn. I. p. 63.

33. F. exiguus Sulliv. (Musc. Allegh. p. 44 et Exs. No. 182!); *dioicus;* caulis gregarie cespitosus amoene viridis brevissimus; folia 5—9-juga, *e basi angusta subspathulatâ* oblonga *obtusiuscule lanceolata, integerrima mollissima, amoene viridia, subpellucide laxiuscule reticulata;* lamina dorsalis supra basin folii enata, basi angustissima; lam. folii vera ad medium producta; nervus flexuosus *albescens* ante apicem abruptus; theca in ped. brevi flavido tenerrimo subobliqua, vel erecta minuta ovalis, deoperculata urceolata, pallida, operc. conico subobliqueque rostellato *turgido* rubro, calyptra conico-dimidiata; perist. d. *angustissimi* ad medium fissi rugulosi purpurei.

Synops. I. p. 64. — Mem. of the Americ. Acad. of Arts and Sc. III. 1846. p. 60. t. 2.

Patria. In sylvis ad rivulorum exsicc. lapides pr. Columbus Ohionis copiosissimus.

Species notis cursive impressis pulchra.

34. F. subcrenatus Schimp. (in litteris!); *dioicus;* frondes complures ex eadem basi, 1—$1^1/_2$ lineas altae, obliquae imbricatae; folia 5—6 juga, *sordide ferruginea,* infima minima, superiora majora lanceolata, ad medium duplicata, immarginata, subcrenata, summa subintegra,

nervo solido ferrugineo, in summo apice evanescente, cellulis rotundato-hexagonis; theca in ped. basi geniculato brevissimo erecta, oblonga minuta; perist. *F. bryoidis*. †.

Patria. Mexico, Mirador: Liebmann m. Januar. deoperc. legit.

A *F. prionode* proximo foliis brevioribus, latioribus, minus crenulatis, cellulisque duplo majoribus differt. — Huc pertinere videtur.

Incertae sedis.

35. **F. turbinatus** Tayl. (Lond. Journ. of bot. 1848. p. 190.); dioicus? caulis laxius cespitosus erectus simplex, apice subincurvus, pallide viridis, subuncialis; folia erectiuscula, deorsum *heteromalla* (homomalla?), e basi latiore *elongate lineari-lingulata, integerrima*, obtusa; theca terminalis erectiuscula elongato-turbinata, *basi strumosa*, operc. conico acuminato-rostrato. †.

Patria. Pichincha prope Quito: W. Jameson m. Dec. 1846.

Ex auctore caracteribus laudatis a *F. adiantoide* (fructu tamen laterali jam longe distante) refugit.

36. **F. linearis** Brid. Syn. I. p. 71.

2. *Folia dense areolata, plus minus opaca, papillosa.*

a. *Folia marginata.*

α. Infloresc. hermaphrodita.

37. **F. semimarginatus** C. Müll. Syn. I. p. 55.

β. Infloresc. androgyna.

38. **F. androgynus** Bruch. Syn. I. p. 57.

γ. Infloresc. monoica.

39. **F. rufescens** Hsch. Syn. I. p. 54.

40. **F. Hornschuchii** Mont. l. c. p. 54.

δ. Infloresc. dioica.

41. **F. curvatus** Hsch. Syn. I. p. 59.

42. **F. Ceylonensis** Dz. et Molkb. Syn. I. p. 59.

43. **F. crispus** Mont. Syn. I. p. 61.

44. **F. dimorphus** C. Müll.; *dioicus*, pusillus simplex; folia caulis fertilis 8—10-juga, sterilis c. 18-juga, crispa, apice caulis subfalcata, madefacta stricta, lanceolata, *dimorpha: perichaetialia laminâ folii vera albido-marginata, caulina laminâ immarginata;* omnia nervo excurrente albido praedita; laminae ceterae immarginatae, e cellulis minutissimis viridibus opacis areolatae, subintegerrimae; theca in ped. geniculato-ascendente brevi ovalis parva subrecta.

Patria. Brasilia, insula St. Catharina, ad lapides sylvarum montosarum densissimarum prope Destero: Pabst m. Apr. et Jun. 1847.

F. Hornschuchii habitu similis, sed notis laudatis sat diversus.

45. **F. Ravenelii** Sulliv. (Contrib. to the Bryology and Hepat. II. p. 171. t. 2!); *dioicus;* caulis pusillus gregarie cespitosus rufo-virens v. viridis, declinatus, apice decurvus; folia caulina 8—16-juga dense imbricata, sicca et madefacta apice decurva, minute lanceolata, angusta, immarginata, ubique *tenuissime crenulata*, subtilissime areolata, opaca, papillosa, nervo canaliculato *flavido vel ferrugineo* excurrente; lamina folii vera ad $^1/_2$ producta; l. dorsalis basi angustissima; perichaetialia cum lamina folii vera ventricosa, margine crassiuscule *flavide* limbata; theca in ped. geniculato-ascendente brevi flavido, innovando pseudolaterali, ovalis parva recta *subverrucosa*, operc. brevi oblique acuminato, calyptra conica dimidiata glabra; perist. d. angusti.

Memoirs of the Americ. Acad. of Arts and Sciences. Vol. IV. New Series 1849. p. 171. t. 2.

Patria. Carolina meridionalis, ad terram humidam prope „Santee Canal": H. W. Ravenel m. Martii 1847 detexit; ad Society Hill: M. A. Curtis.

A *F. dimorpho* affinissimo notis laudatis differt.

b. *Folia immarginata.*

a. Infloresc. monoica.

46. **F. capitatus** Hook. et Wils. Syn. I. p. 61.

β. Infloresc. dioica.

47. **F. Mangarevensis** Mont. Syn. I. p. 62; *dioicus?*

48. **F. flabellatus** Hsch. l. c. p. 62.

49. **F. longifolius** Brid. l. c. p. 65; *dioicus?*

50. **F. prionodes** Mont. l. c. p. 67; *dioicus!* humilis; folia sordide ferruginea, anguste lineari-lanceolata, nervo crasso ferrugineo excedente breviter pungentia, ubique serrulata, grossiuscule papilloso-areolata.

51. **F. Guianensis** Mont. (Ann. d. sc. nat. 1840. XIV. p. 340.); *dioicus?* caulis simplicissimus declinatus parvulus; folia 6—8-juga laxa v. contigua, rarissime vel suprema subimbricata, distiche patentia, infima minima, inde sensim majora, madore ac siccitate incurvo-secunda crispula, oblongo-linguiformia, apice obtuse subacuminulata, margine infero basin versus in caule non confluentia, sed limbo suo rotundato ab eo distantia; lamina folii ad $^1/_3$ producta; omnes laminae ubique subtilissime denticulatae; nervo continuo diaphano percursa, tenuissime subquadrato-areolata, amoene viridia; perich. unicum minutum obtusissimum; theca in ped. geniculato-ascendente erecta, oblonga subinaequalis, sub ore rubro constricta, ob flexuram pedunculi tantillum inclinata, operc. conoideo-acuminato recto; calyptra cucullata; perist. d. in crura duo longa pallida fissi purpurei. †.

Patria. Guiana Gallica, ad arborum corticem in summo monte Matouri insulae Cayennae: Leprieur.

Ex habitu *Conomitrio radicanti* affinis.

52. **F. elegans** Brid. (II. p. 691.); *dioicus?* caulis *longiuscule erectus simplicissimus gracillimus elegantissimus* virens; folia 20-juga approximata linearia *obtusa*, interdum mucronulata, *tenuissima*, *integerrima*, nervo continuo instructa, subtilissime circulari-areolata; theca in ped. terminali minutissimo 4-lineari solitario luteo suberecta, oblonga aequalis, sub ore constricta, olivaceo-rufa, operc. e basi conica longirostrato thecam aequante, basi rufescente, superne luteolo, calyptra cucullata; perist. dentes profunde bifidi. †.

Skitophyllum elegans La Pyl. Journ. Bot. Desv. 1813. No. V. p. 43. t. 36. f. 18.

Patria. Hispaniola: Poiteau.

Incertae sedis.

53. **F. genunervis** C. Müll. Syn. I. p. 70.

Species dubiae.

1. **F. acacioides** Brid. Syn. I. p. 71.

Species nomine tantum memoratae.

1. **F. lanceolatus** Bruch. Syn. I. p. 73.

2. **F. nobilis** Griffith in Muscis Assam.; in Lond. Journ. of bot. 1848. p. 273 memoratus.

II. **Polystichophylla.**

Folia in series tres et plures rectas vel alternantes disposita.

A. *Folia (in sectione transversali) ductibus intercellularibus instructa.*

Trib. VIII. LEUCOBRYACEAE. I. p. 73.

Folia e cellularum columnarium parenchymaticarum inanium stratis compluribus composita; ductus intercellulares in serie unica curvata inter cellulas interpositi 3—4-angulares chlorophyllosi.

Gen. I. **Leucóbryum** Hmp. I. p. 74.

Ductus intercellulares folii 4-angulares; calyptra dimidiata; perist. simplicis dentes superne bifidi 16 purpurei.

4b. **L. chlorophyllosum** C. Müll.; cespites latissimi densi rigidiusculi intense glauco-albidi, humiles; caulis brevis subramosus apice subincurvus; folia subsecunda, *facillime emollientia*, e basi oblonga inferne angustiore *distincte falcato-lanceolata, haud flexuosa, nunquam radiculosa* acuta, *summo apice tantum dorso parcissime verrucosa, margine omnino integerrima*, e basi ad medium usque distincte marginata, *ductibus intercellularibus maxime translucentibus et chlorophyllosis amoene reticu-*

lata, breviora, angustiora, *perfecte canaliculata;* perich. exteriora immarginata, intimum superne reflexum; theca in ped. elongato purpureo tortili inclinata breviter oblonga macrostoma siccitate multoties plicata, basi distincte strumosa, operc. longe conico et oblique subulato; perist. d. purpurei longi bifidi valde trabeculati.

Syrrhopodon rigidus Duby in Zollinger. Pl. No. 3370!

Patria. Insula Sumbawa Archipelagi Indici: Zollinger.

A *L. Martiano* simillimo omnibusque congeneribus ductib. intercellularibus descriptis facile distinguitur; a *L. sancto* notis cursive impressis longe distat.

4c. **L. mucronifolium** Al. Br. (in litteris!) *L. chlorophylloso* simillimum, sed folia falcato-lanceolata *in mucronem distinctum fuscidulum acutum spinaeformem producta, ubique dorso glaberrima,* e cellulis multo minoribus *densius reticulata, ductibus intercellularibus nunquam translucentibus.*

Patria. Java: Blume. Hb. Al. Braun.

Sterile solum examinavimus.

11. **L. giganteum** C. Müll. I. p. 79; pedunculi elongati, theca obovata arcuata, basi strumulosa, olivacea, operc. conico longirostrato purpureo; perist. d. elongati robusti.

Patria. Venezuela, Galipan, alt. 5000′ m. Januar. c. fruct. ad terram: Funck et Schlim in Coll. Linden. No. 359, et ibidem in prov. Carabobo ad Cumbre de Valencia, alt. 5000′ m. Maji c. fruct. supramaturis ad truncos arborum putridos, No. 618.

Gen. II. **Schistomitrium** Dz. et Molkb. I. p. 80.

Ductus intercellulares praecedentis; calyptra campanulata; perist. d. integri sedecim.

2. **Sch. speciosum** Hmp. (Bot. Zeit. 1847. p. 922.); theca angustissime cylindrica; calyptra distincte cylindrico-campanulata angustissima, basi brevissime ciliata, fuscidula.

Leucophanes speciosum C. Müll. Synops. I. p. 81. — *Spirula speciosa* Dz. et Molkb. in Musc. Frond. Archip. Ind. p. 72. t. 26. — *Syrrhopodon speciosus* Dz. et Molkb. in Ann. d. sc. nat. 1844. 2. p. 315.

Patria. Java, in monte Gédé: Zippelius; in sylvis montis Prabakti, ad arborum truncos, altitudine c. 2400 pedum: Zollinger.

Gen. III. **Leucóphanes** Brid. I. p. 81.

Ductus intercellulares praecedentis; calyptra dimidiata; perist. d. sedecim breves lineares integri.

b. *Folia nervosa.*

4b. **L. Blumii** C. Müll.; *L. octoblepharoidi* simillimum, sed *sordide glaucum*, folia fragilia anguste lanceolata subreflexa, e basi subvaginante latiuscule pellucida quadrate reticulata *in subulam brevem lanceolatam nervo lato tereti crasso dorso scabro omnino fere occupatam apice obtusiusculam eroso-serrulatam* producta, *supra basin ob nervum crassum lamina vix conspicua instructa*, limbo incrassato sordide albido *brevissime ciliato* circumducta, ductibus intercellularibus *in nervi medio tantum conspicuis* quadratis minutis in lineam arcuatam congestis; perich. angustissima acutiora; theca in ped. brevi tenui laevi fusco erecta, minute oblonga microstoma, basi subpapillosa, recte subulato-operculata, calyptra angustissima cucullata, superne scabriuscula, basi fissa obtecta; perist. d. rufi conniventes lineares trabeculati et nodoso-denticulati, per paria paullulum approximati.

Syrrhopodon Blumii Nees in hb. Al. Braun.

Patria. Java: Blume.

A *L. fragili* caract. explicatis omnibus certe differt.

Gen. IV. **Arthrocormus** Dz. et Molkb. I. p. 85.

Ductus intercell. quadrangulares; calyptra dimidiata; perist. d. 16 lanceolati integri breves.

Gen. V. **Octoblepharum** Hdw. I. p. 86.

Ductus intercell. triangulares; calyptra dimidiata; perist. d. 8 lanceolati.

Trib. IX. SPHAGNACEAE. I. p. 87.

Folia e cellularum prosenchymaticarum inanium strato unico composita; ductus intercellulares inter cellulas duas interpositi chlorophyllosi.

Gen. I. **Sphagnum** Dill. I. p. 88.

Calyptra thecam totam includens, dein disrumpens.

2. **Sph. macrophyllum** Bernh. I. p. 91.

Patria. America sept., juxta Wilmington Carolinae superioris speciem ipsissimam leg. Sullivant.

3. **Sph. cymbifolium** Ehrh. I. p. 91.

Sph. latifolium Hdw. Sp. Musc. p. 27. — *Sph. obtusifolium* Ehrh. Crypt. p. 241.

7. **Sph. squarrosum** Pers. I. p. 97.

Sph. squarrulosum Lesquereux in schedis! Forma tenella gracilior! In m. Jura, loco Marais des Ponts lectum.

8. **Sph. Meridense** C. Müll. I. p. 95.

Patria. Columbia, Silla de Caracas, alt. 6500': Funck et Schlim in Coll. Linden. No. 344; m. Januar. 1845 sterile lectum.

9b. **Sph. pulchricoma** C. Müll. I. p. 102; folia peduncularia fibris annularibus carentia, latissime ovalia concava subimplana obtuso-acuminata, *ubique fere e cellulis incrassatis densis reticulata, igitur immarginata*; theca *Sph. cuspidati.*

Patria. Brasilia, prov. St. Catharina, locis uliginosis inter fruticeta ad flumen Itajahi pulcherrime fructiferum legit Pabst Nov. et Dec. 1846.

10. **Sph. acutifolium** Ehrh. I. p. 96.

Sph. fimbriatum Hook. et Wils. in Fl. Antarct. II. p. 398.

Patria. Insulae Falklandi et Eremitae: J. D. Hooker.

12. Sph. compactum Brid. I. p. 98.

Sph. strictum Sulliv. Musc. Allegh. Exsicc. No. 201 et Synops. I. p. 104. — *Sph. tabulare* Sulliv. l. c. No. 204 et Synops. I. p. 104.

δ. ramulosum; Syn. I. p. 99. *Sph. molle* Sulliv. Musc. Allegh. Exs. No. 205 et Syn. I. p. 104.

13. Sph. molluscoides C. Müll.; Syn. I. p. 99.

Sph. acutifolium var.? Sulliv. Musc. Allegh. Exs. 203!

Patria. In arenosis hyeme inundatis circa Mobile, Alabamae: Sullivant.

14. Sph. subsecundum Nees I. p. 100.

Patria. Ohio, Columbus: Sullivant.

Species incertae sedis.

19. Sph. Torreyanum Sulliv. (Mem. of Americ. Acad. of Arts and Sc. IV. 1849. p. 174.); robustum, sordide fuscescens; caulis pedalis longior firmus divisus, ramulis 4—5 fasciculatis inferne remotis, superne confertis, 12—15 lin. longis, 3—4 lin. latis, lineari-lanceolatis, complanatis plumulosis laxe foliosis; folia patula convoluta elongato-lanceolata apice tubiformia minute eroso-dentata, margine e cellulis exilissimis 4—5 seriatim conflato circumducta, serpentino-reticulata, sectione transversali cellulas linea spirali notatas magnas subrotundas exhibentia, ductibus chlorophyllosis minutis triangularibus exterius interpositis. †.

Patria. America septentrionalis, Essex County, New York: Dr. Torrey sterile legit.

S. laxifolio peraffine videtur. Areolatio folii *S. cuspidati.*

B. *Folia ductibus intercellularibus nullis.*

I. *Folia epapillosa.*

1. Laxe areolata.

Trib. X. FUNARIOIDEAE. I. p. 105.

Folii areolatio parenchymatica laxa chlorophyllosa.

Subtrib. I. FUNARIACEAE. I. p. 105.

Flos masculus disciformis, in ramo proprio radicali terminalis vel in axillis foliorum nudus. Perist. obliquum asymmetricum.

Gen. I. **Funaria** Schreb. I. p. 106.

Calyptra dimidiata. Peristom. duplex vel internum interdum obsoletum. Dentes ext. sedecim, lanceolati obliqui, cristato-appendiculati; interni totidem membranacei.

2. Peristom. exacte duplex.

b. *Theca laevis.*

α. Folia obtusata.

5. **F. obtusata** Schimp. (in litteris!); humilis; folia patenti-recurva, *lingulata obtusa, planiuscula, superne crenulata,* nervo sub apice evanido; theca in ped. 6—9 lineas alto, siccitate dextrorsum torto obliqua, *parvula* breviter pyriformis, *collo sporangio subsphaerico longiore arcuato,* operc. deplanato-convexo, umbonato, annulo nullo; perist. *F. serratae.* †.

Patria. Mexico prope Mirador: Liebmann m. Aug.

6. **F. Jamesoni** Tayl. (Lond. Journ. of bot. 1848. p. 189.); caulis laxe cespitosus erectus simplex basi nudiusculus bilinearis; folia in rosulam congesta, ex angusta basi *rotundato-oblonga obtusissima* apiculata evanidinervia subintegerrima pallide viridia, nervo brunnescente; theca inclinata *elongate* pyriformis laevis, apophysi obconica longitudinaliter rugosa, operc. *plano emammillato;* perist. d. ext. obliqui trabeculati opaci, int. pallide brunnei pellucidi latiuscule cellulosi. †.

Patria. Monte Pichincha Andium Quitensium: W. Jameson, Dec. 1846.

Auctor c. *F. Fontanesii* comparavit. Ab hacce specie notis cursive impressis differre dicitur. Pulchra sp. videtur.

β. Folia ovata.

7. **F. convexa** Spruce (Musc. Pyr. 149 et Ann. and Magaz. of Nat. Hist. 1849. No. 197.); *monoica; F. Mühlenbergii* simillima, sed folia omnia e basi angusta *latissime spathulato-ovata apiculata*, concava, laxissime majuscule reticulata, nervo tenui longe infra apicem evanido percursa, supra medium serrulata; theca in ped. dextrorsum contorto, operculo *convexo, neutiquam convexo-conico*, calyptra *persistente, deorsum* apiculata.

F. serrata Br. Europ. Fasc. XI. p. 8. t. 3. — C. Müll. Synops. I. p. 111. — Synonymum Belvisianum deleatur!

Patria. Ad fossarum margines Sardiniae: Fr. Müller. In Pyrenaeis occid., in aggeribus arenosis planitiei, societate F. Mühlenbergii, ad St. Sever: Spruce. — Ineunte aestate. ☉.

A *F. serrata* P. B. vera theca erecto-arcuata pyriformi plagiostoma longicolla primo adspectu distinguitur.

8. **F. Fontanesii** Schw. (Suppl. I. II. p. 80. t. 66!); *F. convexae* simillima, sed theca erecta *vix asymmetrica et vix curvula, entosthodontoidea, e collo brevissimo obconico-pyriformis*, operc. *breviter conico.*

C. Müll. Synops. I. p. 112 ex parte. — Ex litteris Montagnei in Hb. Desfontaines. loco speciei hujusce *Weisia verticillata* posita est; an igitur Desfontaines speciem veram Schwägrichenio e Barbaria communicaverit, dubium est.

Patria. In Barbaria Desfontaines legisse dicitur; in Algeria e commun. Montagnei hucusque nondum reperta est. Ex Aegypto Persoon habuit, e Lusitania Sprengel. Speciem veram ex insulis Canariensibus ab amic. Montagne communicatam vidimus.

F. Mühlenbergii theca valde asymmetrica e collo longo oblique globoso-pyriformi atque foliis longe acuminatis facile distinguitur.

9. **F. laxissima** C. Müll.; *F. Mühlenbergii* simillima, folia e basi angustiore spathulata, *latissime ovata, obtuse acuta vel breviter apiculata, integerrima, flaccidissima,* e cellulis ubique *maximis amplissimis laxissimis tene-*

ris amoene chlorophyllosis reticulata, nervo tenu infra apicem evanido; theca in ped. brevisculo r erecta, e collo brevi oblique globoso-pyriformis a trica, exannulata, operc. conico acuto.

F. Fontanesii Brid. II. p. 739! — C. Müll. Synopt. ex parte.

Patria. Brasilia, unde Persoon habuit.

A *F. Hibernica* foliorum forma atque struct operculo conico refugit; a *F. convexa* foliis ampl reticulatis amoene chlorophyllosis integris et oper distat; a *F. serrata* jam thecae forma distinguitur; *Fontanesii* thecae forma foliisque integris amplissim ticulatis valde chlorophyllosis recedit; cum caeter generibus commutari nequit.

10. **F. subnuda** Tayl. (Lond. Journ. of bot. 18 37!); caulis aggregatus erectus simplex, basi sub semiuncialis; folia flavido-viridia, *late ovata acuta, xime concava, apice subserrulata, nervo vix perfo pedunculus theca duplo longior;* theca exannulata ctiuscula laevis *ovata elongate apophysata*, operc. perist. ext. d. lanceolati obliqui, int. *brevissimi valde irregulares;* calyptra basi inflata, apice incli

F. physcomitrioides var. Wils. — Syn. I. p. 111!

Patria. Nova Hollandia, ad Swan River: J. D mond.

Ex obs. *F. physcomitrioidis* ob notas laudatas s distinctissima putanda est.

11. **F. glabra** Tayl. Syn. I. p. 112.

γ. Folia spathulato-lanceolata.

12. **F. serrata** P. B. (in Brid. Bryol. univ. II. et in Mant. Musc. p. 124!); *monoica;* folia perich *gate spathulato-lanceolata, carinata, distinctius serrata, nervo crassiore excurrente percursa,* e *elongatis angustioribus viridissimis* chlorophyllosis maximis tenerioribus quam ad apicem reticulata; the ped. *elongato rubro* stricto *inclinata, e collo brevi*

bosa, discelioidea parvula, rubra, exsiccata evacuata valde arcuata nitida, laevissima, operc. planiusculo; perist. d. ext. intense purpurei, anguste lanceolati, int. illos aequantes angustissime subulati fusci subrugulosi; sporae tuberculosae.

Sulliv. Musc. Allegh. Exs. No. 126. — Drumm. Musc. Amer. No. 76.

Patria. America septentrionalis, ubi in Pensylvania primus detexit Palisot de Beauvois; in Alabama pulcherrime legit Sullivant.

E thecae forma discelioidea primo visu ab omnibus congeneribus differt.

δ. Folia longe acuminata.

13. **F. Mühlenbergii** Schw. Syn. I. p. 109.

Patria. Istria, prope Dignano: Sendtner. In Pyrenaeis occ., in solo arenoso circa St. Sever reg. montosae inferioris; in Pyren. centr., in rupib. calcareis terra obtectis juxta thermas de Salut dictas, Bagnères de Bigorre: Spruce.

14. **F. Hibernica** Hook. Syn. I. p. 109.

Patria. Torrette pr. Spalato Dalmatiae: Sendtner.

15. **F. physcomitrioides** Mont. I. p. 111. — *monoica!* caulis pusillus; theca subsymmetrica globoso-pyriformis erecta; fol. perigonialia in rosulam discoideam congesta, latissime ovata apiculata, evanidinervia.

Gen. II. **Pyramidium** Brid. I. p. 113.

Calyptra tetragona pyramidata, thecam totam includens, persistens, inflata.

Gen. III. **Physcomitrium** Brid. I. p. 114.

Calyptra mitraeformis, basi in plures lacinias fissa, interdum lamellis sulcata basi subintegra, operculum obtegens. Peristom. nullum.

3. **Ph. Thieleanum** Hmp. I. p. 116.

Patria. Brasilia, Sta. Catharina, a
agris cultis coloniae Germanicae, m. Aug
Pabst.

3b. **Ph. subsphaericum** Schimp. (in
perbrevis; folia patula flexuosa, oblongo-
interdum late lanceolata acuminata, de
margine dense et *argute dentata*, nervo
nido, *cellulis minoribus*; theca in ped.
deoperculata *hemisphaerica*, nec pyrifor
planato-convexo, oblique rostellato, calyp
cera. ♀.

Patria. Mexico, Pico de Orizaba,
Fissidente commixtum: Liebmann.

A *Ph. Thieleano* proximo caracteri
auctore differt. Theca *Ph. sphaerici.*

B. *Theca immersa.*

a. *Folia enervia.*

5. **Ph. repens** C. Müll.; *monoicum;*
pens mollis albidus carnosus valde radicul
motissimis brevissimis dense foliosis erect
bus clavatis, in ramulos duos divisis; ra
mineus, alter masculus; perichaetium par
femineum totum sistens, foliis *latissime*
formi-concava, obtusa, in acumen plu

mammillato, calyptra *minutissima* glabra; sporae maximae coriaceae laeves fuscae.

Schistidium repens Brid. I. p. 120. — *Anoectangium repens* Hook. Musc. Exot. t. 106. — Schw. Suppl. III. I. 1. t. 208.

Patria. Nova Hollandia, ad plagam occidentalem: Menzies 1791. Ad Swan River sub Bryis: Preiss sub No. 2454 ex parte!

6. **Ph. enerve** C. Müll.; *monoicum; gregarium* vix lineare brevissimum simplex; folia dense imbricata, humore laxe patula, cochleariformi-concava, late ovata *breviter apiculata*, enervia integerrima, margine erecto, albescentia, siccitate haud contractilia, laxe rhomboidaliter reticulata; perich. longiora conniventia; theca subsessilis globosa exannulata, operculo *planiusculo, haud mammillato*, calyptra *omnino obtecta magna* campanulata albida membranacea, *lamelloso-sulcata.* †.

Goniomitrium enerve Hook. et Wils. Lond. Journ. of bot. 1846. p. 142. t. 3. A.

Patria. Nova Hollandia, ad Swan River: James Drummond in terra rubra legit.

A *Ph. repente* simillimo caracteribus laudatis longe differt.

b. *Folia nervosa.*

7. **Ph. Goniomitrium** C. Müll.; *monoicum; Ph. enervi* simillimum, *subsimplex, duplo longius speciosius;* folia *ovato-lanceolata longe acuminata, nervo valido subexcurrente percursa*, rigidula, laxius imbricata, *minus concava, siccitate contracta, subflexuosa, viridia;* perich. longius acuminata, theca longius pedunculata *subemersa;* theca, operculum et sporae *Ph. enervis*, calyptra majore magis albescente costis *vix prominulis.* †.

Goniomitrium acuminatum Hook. et Wils. Lond. Journ. of bot. 1846. p. 143. t. 3. B.

Patria. Nova Hollandia, in solo nigro: J. Drummond ad Swan River legit.

8. **Ph. serratum** C. Müll.; *monoicum;* flores masculi *nudi in axillis foliorum omnium caulinorum; cespitulo-*

sum, erectum breviusculum amoene lutescens, ra folia elongate anguste lanceolata *serrata*, subcarina xissime reticulata pellucida albida, nervo subvalid excurrente; perich. superne magis dilatata; theca l sime pedunculata in perichaetio *maxime* patulo p conspicua, globosa, *medio rumpens*, exannulata lev operc. *magno cupulato mammillato*, calyptra camp *parva*, basi laciniata, *superne angusta longiuscul*

Schistidium serratum Hook. et Wils. in Drumm. Mus. No. 20 et Sulliv. Musc. Allegh. No. 198. — C. tab. in Mem. Americ. Acad. of Arts and Sc. III. New. Ser. 1846. p. 62. t. *Aphanorhegma serrata* Sulliv. in litteris!

Patria. Ad terram udam in Virginia et Ohione, rarum: Drummond, Sullivant.

A *Ph. Goniomitrio* notis laudatis longe differt.

Species incerti generis.

6. **Ph. laxum** Hook. et Wils. (Fl. Antarct. II. p. t. 151. f. 5.); cespites laxe cohaerentes altiusculi; robustus subelatus laxifolius; folia caulina erecto-ap laxe conferta, e basi angustiore longiusculâ spath ovato-acuminata, integra, e cellulis magnis laxi lutescentibus basi longioribus reticulata, nervo ultra dium evanido.

Patria. In Archipelago Antarctico, Kerguelens La J. D. Hooker.

Species memorabilis, sterilis tantum lecta. Ad Ph comitria theca immersa forsan pertineat.

Gen. IV. **Entósthodon** Schw. I. p. 120.

Calyptra dimidiata. Peristomium nullum vel si plex, rarius membrana interna brevissima irregula ter vel in dentes fissa duplex. Dentes sedecim la ceolati exappendiculati.

Ob thecam plerumque symmetricam a Funariis diffe melius forsan sectio generis Funariae, cujus theca asy

metrica et perist. internum in Entosthodontibus quoque observatur.

I. *Eperistomati.*

4. **E. cricetorum** C. Müll. I. p. 122.

Patria. In Pyrenaeis occid. ad fossarum margines circa Pau et St. Sever in planitie et zona montosa inferiore legit Spruce.

6. **E. acidotus** C. Müll.; monoicus; caulis cespitosus pusillus erectus subsimplex, basi nudus, apice complanatus, brunneo-rufus, superne viridis dense foliosus; folia arcte imbricata erectiuscula lanceolata longius acuminata subintegerrima grosse cellulosa, marginibus ad apices incurvis; theca in ped. apice subincurvo scabriusculo obovata, operc. planiusculo; calyptra dimidiata, basi haud ventricosa. †.

Gymnostomum acidotum Tayl. Lond. Journ. of bot. 1848. p. 279.

Patria. Monte Pichincha ad nives aeternas: W. Jameson, 5. Julio 1847.

Auctor c. *Physcomitrio Bonplandii* comparavit. Ab hocce differre dicitur: foliis latioribus, pedunculo breviore strictiore et theca distinctius apophysata.

II. *Peristomati.*

a. *Folia obtusa.*

α. Folia immarginata.

7. **E. Durieui** Mont. (Ann. d. sc. nat. 1849. XI. p. 33.); *E. commutato* similis, folia *e basi longa perangusta anguste spathulato-ligulata obtusiuscula*, integerrima, caviora, laxissime reticulata, amoene chlorophyllosa, tenera, nervo ad medium producto tenui; theca erecta, e collo *breviori ovalis, ovato-pyriformis*, operc. convexo obtuso; perist. *E. commutati.*

Mont. cum ic. in Fl. Alger. t. 35. f. 4.

Patria. Algeria, ad parietes humidas molinendarias nec non ad rupes calcareas umbrosas humidasque prope lapsum rivi Rummel infra Constantine, m. April. et Maji; prope Tlemcen locis similibus: Durieu.

Ab *E. Templetoni* foliorum et thecae forma long recedit.

8. **E. obtusifolius** J. Hook. Syn. I. p. 125.

β. Folia marginata.

9. **E. marginatus** C. Müll. Syn. I. p. 125.

b. *Folia acuminata.*

α. Folia integra.

10. **E. commutatus** Dur. et Mont. (Ann. d. sc. n. XII. 1849. p. 317.); *E. Templetoni* similis, folia *multo tenuiora, flaccida, laxius reticulata, late oblonga in aciculum longiusculum attenuata, integerrima;* theca in ped. sinistrorsum torto erecta, madore *e collo longiusculo globosa parvula, perfecte globose pyriformis;* operc. convexo cum umbone obtuso; perist. d. *validi* pro ratione long. *lanceolati* articulati, *punctati, linea media longitudinali exarati,* sicco conniventes.

Mont. cum ic. in Fl. Alger. t. 35. f. 3.

Patria. Algeria, in collibus Babazoum dictis prope Algier: Durieu.

E. Templetoni theca madore subinclinata oblonga subclavata foliisque firmis primo visu differt.

11. **E. Bergianus** Br. et Sch. Syn. I. p. 126.

12. **E. curvipes** C. Müll. Syn. I. p. 123.

β. Folia dentata.

13. **E. radians** C. Müll. Syn. I. p. 122.

14. **E. Mathewsii** J. Hook. Syn. I. p. 124.

γ. *integer.* l. c.; peristomium internum perfectum anguste lanceolatum. *Ent. brachyodus* Mont. in schedis et Fl. Chilens. ined. — *Funaria Fontanesii* Br. et Sch. in Br. Europ. subfunaria, p. 5 et C. Müll. Synops. I. p. 112 memorata.

Patria. Chile: Bertero et Gay legerunt.

15. **E. Templetoni** Schw. Syn. I. p. 124. — Theca madore subinclinata, clavate pyriformis.

Patria. In Pyrenaeis occid., in Agro Syrtico circa St. Sever et St. Pandelon, ad terram arenosam c. *E. fasciculari*: Spruce in planitie legit.

Gen. V. **Amblyodon** P. B. I. p. 126.

Calyptra cucullata. Perist. duplex; externum: dentes 16 breves lanceolati obtusi integri; internum: dentes totidem lanceolati subulati, longitudinaliter fissiles, externos multo superantes, in membrana brevi positi.

Subtrib. II. SPLACHNACEAE. I. p. 127.

Flos masculus gemmaceo-capituliformis. Peristomium regulare symmetricum.

Gen. VI. **Oedipodium** Schw. I. p. 128.

Calyptra mollis longiuscule angusta dimidiata. Perist. nullum.

Gen. VII. **Tetraplodon** Br. et Sch. I. p. 129.

Calyptra cucullata. Perist. simplicis dentes 16 duplices, quaternatim approximati, lanceolati, siccitate reflexi, madore erecto-incurvi.

Gen. VIII. **Tayloria** Hook. I. p. 132.

Calyptra inflato-campanulata. Perist. simplicis dentes 16—32, infra thecae orificium oriundi, madore incurvi et involuti, siccitate reflexi thecae adpressi vel tortuosi.

4b. **T. Pichinchensis** C. Müll.; caulis laxe cespitosus erectus subsimplex uncialis crassiusculus, basi ferrugineo-tomentosus; folia subimbricata subpatentia *ovata ruptinervia* dentata submarginata; thecae in ped. sparsis laevibus erectiusculae *ovato-cylindraceae, basi anguste apophysatae, longirostrate oblique operculatae*, annulatae; perist. d. sedecim lanceolati acuminati opaci brunnei aequidistantes, linea longitudinali obsoleta. †.

Weisia Jamesoni Tayl. Lond. Journ. of bot. IV. 1847. p. 330.

Patria. Monte Pichincha Andium Quitensium: Will. Jameson, m. Novbr. 1846 legit.

A *T. Jamesoni* caracteribus cursive impressis facile distinguitur.

6. **T. Rudolphiana** Br. et Sch. I. p. 136.

Patria. Bavaria superior circa Portenkirchen: Arnold; ibidem in alpib. Algovicis „in der Spielmannsau" ad fagum vetustam: Sendtner; ibidem in alpe „Hammersbacher-Alpe", ad truncos Aceris, socio *Neckerae* (*Leucodontis*) *sciuroidis*, alt. 4400′: Sendtner 12. Aug. 1849.

Gen. IX. **Dissodon** Grev. et Arn. I. p. 137.

Calyptra inflato-campanulata. Perist. simpl. dentes 32 in 8 vel 16 connati plani, madore in conum depressum conniventes, siccitate subincurvi.

Sectio I. **Systylium** Hsch. — Operculum in columella exserta persistens; perist. truncatum breve.

Sectio II. **Cyrtodon** R. Br. — Operculum deciduum; perist. d. lanceolati acuti.

b. *Folia cuspidata.*

8. **D. cuspidatus** C. Müll. I. p. 142. — Folia late obovata, laxe reticulata, firmiuscula, ad aristam elongatam saepius subdenticulata, theca in ped. perbrevi *firmo, in apophysin obconicam turgescentem magnam thecam superantem erectam* rubram incrassato, erecta, cylindracea, parva.

Hook. et Wils. c. ic. in Fl. Antarct. I. p. 123. t. 57.

Patria. Insulae Auckland: J. D. Hooker.

A *D. plagiopode* notis cursive impressis certe distinguitur. *Tetraplodonti mnioidi* e thecae forma simillimus, calyptra autem campanulata basi laciniis inflexis praedita generice differt.

9. **D. purpurascens** C. Müll.; *D. cuspidato* simillimus, sed foliorum viridium nervus in arista elongata *subrecurva evanescens*, pedunculus longior, *in collum angustum et thecam ovali-oblongam sensim incrassatus*, calyptra *D. Magellanici.*

Splachnum purpurascens Hook. et Wils. Syn. I. p. 142. — Fl. Antarct. I. p. 123. t. 57.

10. **D. plagiopus** C. Müll.; dioicus; folia ad aristam elongatam saepius subdenticulata, late obovata, firmiuscula, cellulis laxis reticulata; theca in ped. perbrevi *carnoso* rubente *superne in collum elongatum plus minus obliquum incrassato ovalis v. cylindracea*, parva, subclavata.

Splachnum octoblepharon var. *β.* Hook. et Wils. in schedis musc. Antarct. — Forma humilior densius cespitosa, foliis angustioribus, magis undulatis, pedunculo in collum longius intense rubrum obliquum magis incrassato, theca plus minus ovalis v. cylindrica. — *Spl. plagiopus* Mont. C. Müll. Syn. I. p. 143!

Patria. Insula Campbelli: J. D. Hooker.

Perist. nobis haud visum. Notis illustratis a *D. cuspidato* longe differt.

11. **D. Magellanicus** Hmp. (in litteris!); caulis dense cespitosus, fusco-tomentosus, elatus subsimplex *robustiusculus;* folia lutescentia firmiuscula laxe imbricata, *siccitate subcrispula, late lanceolata acuminata*, carinata, *apicem versus cellulis magnis prominentibus serrata, nervo elongato tenuiusculo flavido ante apicem evanido* percursa, e cellulis elongatis inanibus magnis firmiusculis laxissime reticulata; perich. longiora, latiora, laxius reticulata; thecae in ped. *saepius geminatis* breviusculis rubentibus erectae, *oblongo-ovatae, obconico-apophysatae,* convexo-operculatae; calyptra conica inflata, *glabra,* truncata, apiculo brevissimo terminata, basi laciniis pluribus inflexis; peristomium in Syn. I. p. 148. descriptum.

Eremodon Magellanicus Brid. I. p. 236. — C. Müll. Syn. I. p. 148. — *Splachnum Magellanicum* Schw. Suppl. I. I. p. 47. t. 14.

Patria. In freto Magellanico: Commerson; ad Cap. Horn: J. D. Hooker, cujus specimina examinavimus.

Caracteribus laudatis a congeneribus facile differt.

Gen. X. **Splachnum** L. I. p. 143.

Calyptra conica parvula. Perist. simplicis dentes **16** lanceolati, per paria approximati, sicci-

A *T. Jamesoni* caracteribus cursive impressis [illegible] distinguitur.

6. **T. Rudolphiana** Br. et Sch. I. p. 136.

Patria. Bavaria superior circa Portenkirchen: Arnold; ibidem in alpib. Algovicis „in der Spielmannsau ad fagum vetustam: Sendtner; ibidem in alpe „Hammersbacher-Alpe", ad truncos Aceris, socio *Neckera* (*Leucodontis*) *sciuroidis*, alt. 4400′: Sendtner 12 Aug. 1849.

Gen. IX. **Dissodon** Grev. et Arn. I. p. 137.

Calyptra inflato-campanulata. Perist. simpl. dentes 32 in 8 vel 16 connati plani, madore in cono depressum conniventes, siccitate subincurvi.

Sectio I. **Systylium** Hsch. — Operculum in columella persistente persistens; perist. truncatum breve.

Sectio II. **Cyrtodon** R. Br. — Operculum deciduum; perist. d. lanceolati acuti.

b. *Folia cuspidata.*

8. **D. cuspidatus** C. Müll. I. p. 142. — Folia [illegible] obovata, laxe reticulata, firmiuscula, ad aristam elongatam saepius subdenticulata, theca in ped. perbrevi *firmo in apophysin obconicam turgescentem magnam theca superantem erectam* rubram incrassato, erecta, cylindracea, parva.

Hook. et Wils. c. ic. in Fl. Antarct. I. p. 123. t. 57.

Patria. Insulae Auckland: J. D. Hooker.

A *D. plagiopode* notis cursive impressis certe distinguitur. *Tetraplodonti mnioidi* e thecae forma simillimus, calyptra autem campanulata basi laciniis inflexis praedita generice differt.

9. **D. purpurascens** C. Müll.; *D. cuspidato* simillimus, sed foliorum viridium nervus in arista elongata *subrecurvo evanescens*, pedunculus longior, *in collum angustum* [illegible] *ovali-oblongam sensim incrassatus*, calyptra [illegible] *nici.*

nam solidam irregulariter incisam conflati; internum: membrana albida in conum tubulosum producta plicata.

2. B. indusiata Brid. I. p. 151.

Patria. In truncis putridis Pyren. occ., reg. media montis Pic de Ger; nec non in valle Jéret: Spruce; Pyren. centr. Vallée de Campan, in sylva Forêt de Paiollest dicta: Philippe. In reg. montosa et subalpina, rarissima.

2. Folia dense areolata.

Trib. XIII. **MNIOIDEAE.** I. p. 152.

Areolatio folii basi parallelogramma, apicem versus rotundato-hexagona parenchymatica, chlorophyllosa vel saepius incrassata, rarissime papillosa.

Subtrib. I. MNIACEAE. I. p. 152.

Folia semper elamellosa, basi pro more evaginata; theca epiphragmate nullo; perist. bryoideum vel (in Georgiis) e dentibus quatuor pyramidatis cellulosis compositum.

Gen. I. **Cinclidium** Sw. I. p. 153.

Calyptra dimidiata. Perist. duplicis d. ext. lanceolati truncati, trabeculati, intus cristati; internum: membrana cupuliformis, foraminibus sedecim dentibus externis oppositis, apice aperta, 16-plicata.

Gen. II. **Mnium** Dill.

Calyptra dimidiata. Perist. duplicis d. ext. 16 lanceolato-subulati, trabeculati, linea longitudinali exarati; intus cristati; internum: membrana clata carinato-plicata, in dentes 16 lanceolatos producta, ciliis interpositis.

Sectio I. **Eumnium.** Theca terminalis laevis pyriformis clavaeformis ovalis plerumque pendula bryacea.

7. **Mn. rostratum** Schw. I. p. 158.

Patria. Costa Rica Americae centralis, reg. m- tosa, inter 5000—8000′ alt., mensib. Febr. 184[illegible]: A. S. Oersted.

9. **Mn. medium** Br. et Sch. I. p. 160.

Patria. In saxosis umbrosis secus rivulos sy- Bois de Gouerdère dictae prope Bagnères-de-Lu- Pyrenaeorum central., reg. infraalpina: Spruce.

12. **Mn. spinosum** Schw. I. p. 162.

Patria. Pyren. central., sub abietum umbra je- pontem Pont d'Espagne dictum: Spruce in reg. sub- pina legit. In Alpib. Algovicis Bavariae, Kreutzek, 73[illegible] alt. 16. Jul. 1849 sterile: Sendtner.

13. **Mn. spinulosum** Br. et Sch. I. p. 162.

Patria. Cum priori, etiam in trunco carioso Val- du Lys Pyrenäorum: Spruce.

17. **Mn. lycopodioides** Schw. I. p. 164.

Patria. Pyren. centrales, Vallon de Courbet- Philippe reg. infraalpina legit. Geiselgasbig pr. N- nachium, 1650′ alt.: Sendtner.

Sectio II. **Aulacomnion** Schw. — Theca terminalis hy- sulcata.

Sectio III. **Rhizogonium** Brid — Theca basilaris lat- v. terminalis, laevis, cylindracea cernua, ovalis, obconica, hy- noidea.

1. Folia subbifaria.

24. **Mn. bifarium** C. Müll. I. p. 172. — Folia sic- tate crispula subsecunda.

Patria. Insulae Auckland: J. D. Hooker speci- cespitibus latis humilibus legit.

26. **Mn. Novae Hollandiae** C. Müll. I. p. 173.

Patria. Insulae Auckland: J. D. Hooker cesp- laxissimos schistostegoideos pulcherrimos legit.

Dubiae species.

1. **Hypnum reticulatum** Hook. et Wils. I. p. 171.

Fl. Antarct. II. p. 417. t. 154. f. 5.

2. Folia imbricata.

a. *Fructus distincte lateralis.*

27. Mn. subbasilare C. Müll. I. p. 174. — Laxe cespitosum, humilius, haud tomentosum, lutescens; folia caulina laxe imbricata, e cellulis *elongato-hexagonis laxis chlorophyllosis mollibus ubique reticulata,* nervo laevi parum carinato flavido v. fuscescente evanido percursa; perich. subintegerrima, nervo tenui fusco ante apicem evanescente praedita, e cellulis elongatis laxissimis amoene fuscis inanibus reticulata, caviora; pedunculus longiusculus purpurascens.

Patria. Ad Cap. Horn in Eremitae insula: J. D. Hooker.

Ex areolatione folii descripta ab omnibus congeneribus facile distincta et pulcherrima species, *Mn. polycarpo* subsimilis. Folia floris masculi ad basin feminei positi perichaetialibus simillima, sed breviora.

28 b. Mn. Paramattense C. Müll.; *Mn. spiniformi* simillimum, sed caulis simplicissimus *multo humilior,* madore strictus, siccitate incurvus, *rigidissimus, crassus,* folia caulina fusca *dense imbricata, siccitate apicem dense comosum attenuatum incurvum sistentia, subsecunda haud crispata,* madore erecto-patentia, *strictissima, haud erecto-curvata, breviora latiora;* areolationis cellulae parietibus *distincte conspicuis rufescentibus, nec in membranam homogeneam conflatis, nec pallentibus instructae.*

Patria. Nova Hollandia, cum Hymenophyllaceis et *Dicrano Sieberiano* commixtum, in collibus „Paramatta-Hügel" nuncupatis. Hb. Kunzeanum.

Species sterilis quidem, sed tamen notis laudatis distinctissima et ex analogia *Mn. spiniformis* fructu basilari certe praedita.

28 c. Mn. Hookeri C. Müll.; cespites elati densiusculi, haud tomentosi; caulis elongatus subgracilis *nigrescens,* innovationibus brevibus v. longis gracilibus lutescentibus

irregulariter ramosus, *rigidissimus;* folia caulina *siccitate atque madore imbricata, nec crispata, nec patentissima, apice gemmaceo-imbricata, nec madore patentissima,* e basi decurrente plus minus ventricosa *breviter latiuscule lanceolata, superne oblique subrecurva, caviora, nunquam carinato-plana,* margine e basi incrassato supra medium *parum* remote et *minute duplicato-serrato,* nervo cellulis incrassate rotundatis *minoribus virescentibus nunquam pallidis concolori, vix canaliculato,* dorso *minute serrato.*

Hypnum spiniforme Hook. et Wils. in Muscis Antarcticis!

Patria. Auckland insulae: J. D. Hooker.

A *Mn. spiniformi* notis illustratis longissime recedit et *Mn. polycarpo* ex areolatione viridi multo affinius. Ab hocce differt foliis brevissime lanceolatis, minute serratis, imbricatis, dein nigrescentibus.

b. *Fructus terminalis.*

32. **Mn. radiatum** Wils. (Lond. Journ. of bot. 1848. p. 274. t. 10.); dioicum; caulis ultrauncialis gracilis erectus *laxe foliosus,* apice ramis brevibus simplicibus verticillatim dispositis strictis patentibus; folia caulina viridissima, valde intorta, humore incurvo-lanceolata, angusta brevia, *denticulata,* margine reflexa *submarginata,* nervo *valido excurrente dorso spinuloso;* perich. conformia; theca in ped. longiusculo terminali, inter ramos verticillatim dispositos oriundo, laevi pendula, parvula oblonga, operc. hemisphaerico-conico. †.

Patria. China, ad rupes umbrosas humidas vallis cujusdam insulae Pih-quan: T. Anderson 1845.

Notis cursive impressis a *Mn. microphyllo* differt; praeterea *Mn. Menziesii* habitum in parvulo refert. Flos masc. stellatus, fol. latioribus remotioribus.

Gen. III. **Hyménodon** Hook. et Wils. I. p. 178.

Calyptra dimidiata. Perist. simplex internum. Dentes sedecim in membrana carinato-plicata lanceolati.

4. M. ovatus C. Müll.

Brachymenium? ovatum Hook. et Wils. Synops. I. p. 180. — Fl. Antarct. II. p. 412. t. 153. f. 4.

Patria. Insulae Falklandi, ad rupes.

Gen. IV. **Georgia** Ehrh. I. p. 180.

Calyptra mitraeformis plicata. Perist. simplicis dentes quatuor pyramidati.

Sectio I. **Tetrodontium** Schw. — Plantae acaules gregariae.

2. G. Browniana C. Müll. I. p. 181.

Patria. In Pyren. central. locis occultis ad rupes arenaceas, etc. praeprimis ferro oxydatas, rara et semper *Campylostelio saxicola* consociata, Labassère, Vallée de Castelloubon: Spruce.

Sectio II. **Tetrácmis.** Plantae elatae cespitosae.

Gen. V. **Leptotheca** Schw. I. p. 183.

Calyptra dimidiata. Perist. duplicis d. ext. 16 lanceolato-lineares erecti, thecae parieti interiori adnati; internum: membrana tenera in cilia totidem linearia fissa, ciliis rudimentariis interjectis.

2. L. speciosa Hook. et Wils. I. p. 184.

Bryum speciosum Mitten in Lond. Journ. of bot. 1851. p. 56 muscum proprium putamus!

Gen. VI. **Leptóstomum** R. Br. I. p. 184.

Calyptra dimidiata. Peristom. simplex internum, e membrana sedecis plicata truncata constitutum.

Gen. VII. **Timmia** Hdw. I. p. 188.

Calyptra dimidiata. Perist. duplicis d. ext. *Mnii;* internum: membrana hyalina in cilia numerosa filiformia nodosa appendiculata producta.

1. T. Megapolitana Hdw. I. p. 189.

lati, filis (cellularum elongatarum pari
lelis pluribus plerumque rufis exarati.

Gen. VIII. **Catharinea** Ehrh. I.

Calyptra dimidiata glabra vel paru
rist. simplicis dentes 32 ligulato-lance
basi connati, lineis rufis parallelis pluri

Sectio I. **Atrichum** P. B. — Folia perfect
haud vaginata; theca cylindrica arcuata.

2b. **C. polycarpa** Schimp. (in litteris s
chi!); *monoica; C. Callibryo* proxima sed
siccitate valde crispata, minus acute acumi
crassiore, dentibus semper geminatis, dorsc
et costam spinulosa, cellulis minoribus; c
basi latiora, minus distincte marginata et si
tata; thecae complures in floris masculi dis
positae (nec in prolificatione propria ut in
erectae cylindricae, operculis longe tenuiter
lyptra et perist. *C. Callibryi.*

C. (*Atrichum*) *Callibryon* var. *δ. brevilamellos*
nops. I. p. 193.

Patria. Mexico, Huatusco: Liebman
lapam primi leg. Deppe et Schiede dein

sius arcolata, nervo crasso fusco excurrente, dorso superne dentato, intus *vix lamelloso;* perich. longa, basi laxe elongate reticulata; omnia madore undulata; theca in ped. elongato *brunneo-atro* laevi parum inclinata anguste elongate cylindrica subarcuata, *ante orificium dilatatum angustata,* operc. conico oblique rostrato; perist. breve.

Patria. America centralis, Costa Rica, reg. montosa, inter 5000 — 8000 ped. elev., mensib. Febr. et Apr. 1847 legit A. S. Oersted.

Fol. perigonialia floris masculi discoidei terminalis e basi latissime ovata pallida laxe reticulatâ in acumen breve incurvum opacum producta, limbo tenuissimo superne irregulariter simpliciter vel duplicate serrato praedita, dorso laevia; intima brevia obcordata; antheridia numerosissima, magna clavata, paraphysibus pallidis tubulosis permultis cincta. — A *C. Callibryo* caracteribus typographice designatis longe differt.

Sectio II. **Psilópilum** Brid. — Folia polytrichoidea, basi haud vaginata, amplexicaulia; theca asymmetrica, compressiuscula.

6. C. compressa C. Müll. I. p. 195. — *Dioica!*

Fl. Antarct. II. p. 410. t. 153. f. 7.

Sectio III. **Oligotrichum** Decand. — Folia praecedentis sectionis; theca cylindrica urnigera v. ovalis, haud incurva, erectiuscula.

8. C. Hercynica Ehrh. I. p. 196.

Patria. Pyrenaei centrales, in regione inferalpina montis Crabioules: Spruce; in alpinis juxta lacum Lehou et supra pagum Gazos: Philippe.

Sectio IV. **Dendroligótrichum** C. Müll. — Folia basi longe vaginata, cirrhata; theca praecedentis; caulis stipitatus, apice dendroideo-ramosus.

15. C. dendroides Hmp. I. p. 199.

Cum ic. optima! *Montagne* in *Gay.* Fl. Chilensi, a *Riocreux* delineata.

Patria. Chile, Valdivia: Philippi.

la Cruces, alt. 10,000 pedum, terrestris, m
Funck et Schlim in Linden. Coll. No

18. **C. Magellanica** Brid. I. p. 201.

Patria. Brasilia, Sta. Catharina, ad r
humidas prope Conciscão, mens. April. 184

An planta Brasiliensis ab Antarctica div
minandum est.

Gen. IX. **Polytrichum** Dill. I.

Calyptra dimidiata, tomento capill
campanulata. Peristom. *Catharineae.*

Sectio I. **Aloidella** C. Müll. — Plantae h
pauca aloidea, siccitate plus minus involuta, appre
aequalis.

5b. **P. Gardneri** C. Müll.; *dioicum; P.*
simillimum, sed folia e basi vaginatâ *angust*
crenatâ magis sensim acuminata vel meli
apice solo parum dentata, nervo fusco ap
rum dentato canaliculato *vix lamellato* ex
cursa; perich. *nervo excedente elamelloso in*
sam integram producta; omnia *ubique fere*
xissimis fuscis, nunquam chlorophyllosis
theca *grossius* papillosa *P. Pensylvanici.*

serratis, obscure chlorophyllose densissime lamellosis, cuspidatis haud aristatis et theca minus papillosa longe differt.

Sectio II. **Cephalótrichum** Br. et Sch. — Plantae elatiores simplices, basi nudae, apice rosulato-foliosae; folia juniperoidea stricta planiuscula; theca aequalis laevis.

9b. **P. comosum** Schimp. (in litteris sub Pogonato!); *P. subulato* proximum; caulis simplex, 1—1½″ altus; folia inferiora et media adpressa, superiora comantia et patentia recurva, siccitate laxe incumbentia, *coriacea solida nec tenuia* e basi semivaginante lingulata haud acuta, plana, dorso convexiusculo, nervo semitereti quartam paginae partem occupante, lamellis margine sulcatis et biseriatim obtuse dentatis, margine pallide ferrugineo, ad basin vaginantem usque dentato; perich. vaginula vix longiora, lanceolata, vaginantia, solo apice margine dentata et in nervo lamellata; theca in ped. subunciali erecta, cylindracea, fusca, operc. depresso-conico acuminato, *breviori*, calyptra dense ferrugineo-pilosa. †.

Patria. Mexico, Pico de Orizaba: Liebmann.

A *P. subulato* ex animadv. auctoris primo intuitu notis cursive impressis differt.

Incertae sedis.

P. Jamesoni Tayl. (Lond. Journ. of bot. 1848. p. 188.); dioicum; caulis laxe cespitosus simplex erectus brevis brunnescens inferne nudus, parte foliosa superiore 4-linearі; folia siccitate et humore plana, haud torta, erecto-patentia, ex lata amplexante basi linearia acuminata denticulata, nervo dilatato; theca in ped. biunciali erecta linearis angusta, basi obconice apophysata quadrilata, parum curvata; operc. hemisphaerico, rostro elongato conico compresso; perist. d. erecti breves saepius bifidi. †.

P. polysetum Hook. et Arn. ex Mitten. Lond. Journ. of bot. 1851. p. 50.

Patria. Monte Pichincha Andium Quitensium: W. Jameson, Dec. 1846.

Thecam c. *Cath. angustata* auctor comparavit. Mentionte Mitten *P. oligodonti, perichaetiali* et *Simensi* proximum.

Sectio III. **Pogonatum** Brid. — Plantae elatae ramosae vel subsimplices, ubique imbricatim foliosae; folia juniperoidea coriacea; theca aequalis laevis.

Theca laevi, haud angulata, foliisque plus minus strictis juniperoideis sectio certe distáns.

a. *Humiliora.*

11 b. **P. capillare** Rich. (in Michaux. Fl. Am. II. p. 294.); *dioicum*; *P. urnigero* simile; *statura semper multo gracilior, humilior, tenerior;* folia caulina *irregulariter laxissime imbricata, siccitate subsecundo-curvula, madore erecta,* e basi breviter vaginante *ubique laxius et aequaliter reticulata, haud albide marginatâ erecta, haud reflexa,* lànceolata acuta, grosse remote dentata, nervo supra basin multilamelloso, apicem folii fere totum occupante, dorso parce serrato; perich. caulinis longius vaginantia, *erecta,* brevius subreflexe acuminata; theca in ped. graciliori breviori erecta *P. urnigeri,* papillosa; perist. d. *elongati valde hyalini,* lineis nonnullis parallelis *distinctis* obscurioribus et medio stria longitudinali *angusta* exarati.

Brid. II. p. 127. — Sulliv. Musc. Allegh. Exs. No. 115! — *P. urnigerum* ex parte C. Müll. Syn. I. p. 209; spec. Lapponica, ad *P. urnigerum* pertinente exclusa! — *P. intertextum* Brid. II. p. 742!

Patria. America septentrionalis, ubi in Carolina primus legit Michaux. E republica New-England, in White Mountains copiosissime et pulcherrime ab Oakes, Tuckermann et Sullivant lectum benevole misit Sullivant. In insula Terre Neuve: La Pylaie.

P. urnigerum statura robustiori, foliis dense imbricatis, madore patentibus subreflexis aliter areolatis et peristomii dentibus multo brevioribus omnino fere rufis longe et certe differt. *P. dentatum* ex ic. Schwägricheniana

foliis perich. longe acuminatis, incrassate areolatis thecaque ovata distare videtur.

14b. **P. Liebmannianum** Schimp. (in litteris sub nom. *Pogonati!*); caulis simplex, $1^1/_2$″ altus, dense foliosus; folia rigida, infima et media patentia, superiora erecta, siccitate imbricata, e basi semivaginante late lineali-lanceolata, subplana, dorso convexo laevi, margine pellucido apice serrato, superne tota latitudine lamellata, nervo excurrente; perich. latiora longiora subconcava; theca in ped. crassiusculo, siccitate superne dextrorsum torto, obliqua vel cernua, ovali-oblonga, operc. convexo-conico acuminato; calyptra pilis densis pallide stramineis totum thecam obtegens.

Patria. Mexico, in monte Orizaba: Liebmann.

Sectio IV. **Catharinella** C. Müll. — Plantae elatiores simplices vel ramosae; folia pro more crispula, aloidea vel *Catharinearum* illis similia; theca *aequalis*, *leviter* 6—8-*angulata*.

Oligotricha generis *Catharineae* referentes species, e theca aequali 6—8 angulata facile discernibiles.

a. *Theca* 6-*angularis*.

α. Folia latissima laxissime cirrhata.

18. **P. convolutum** L. I. p. 213.

19. **P. semipellucidum** Hmp. I. p. 214.

20. **P. contortum** Menz. I. p. 215.

β. Folia angustiora cirrhato-imbricata.

21. **P. tortile** Sw. I. p. 215.

Patria. America centralis, Costa Rica, Aquacate, alt. 1500′, m. Novbr. 1846: A. S. Oersted.

21b. **P. campylocarpum** C. Müll. I. p. 209 sub Pogonato!

22. **P. subtortile** C. Müll. I. p. 216.

22b. **P. Necsii** C. Müll.; *dioicum;* caulis humilis simplex; folia siccitate *appressa*, brevia, *comalia apice subsecunda, nunquam cirrhata*, madore erecto-patentia *densiuscule imbricata*, e basi vaginante pellucida lata *angu-*

stiore densius reticulata latiusculo-lanceolata, *madefacta apice stricta non incurva*, superne *dense serrulata*, nervo multilamelloso, apicem folii fere totum occupante, dorso parce dentato, perich. longiora; theca in ped. longiusculo laevi rubro erecta vel subinclinata cylindrico-ovalis, sub ore dilatato coarctata, papillosa, sexies callosa, operc. conico *brevissime oblique acuminato*; perist. dentes breviusculi hyalini, medio lato-rufi; calyptra longe campanulata ochracea.

Patria. Java: Blume. Hb. Al. Braun.

A *P. subtortile* caract. laudatis facile distinguitur.

22c. **P. Belangeri** C. Müll. I. p. 222. sub Eupolytricho! — Theca sexies! angulata.

23. **P. longisetum** Hook. I. p. 217. sub Eupolytricho! — Theca biangulata quidem a Schwägrichen descripta, sed ex analogia et icon. certe sexies angulata!

b. *Theca 8-angularis.*

23b. **P. octangulare** C. Müll.; dioicum; caulis cespitosus subhumilis simplicissimus strictiusculus; folia siccitate erecto-patula, plana, madore laxissime imbricata patentissima vel reflexa, brevia, e basi brevi latiuscula pallida breviter lanceolata, planissima, supra basin lamellis brevibus omnino obtecta, margine superne breviter sed robuste dentata; perich. similia; theca in ped. mediocri purpureo laevi horizontalis ampla oblonga, octies leviter callosa, brunnescens, basi aequali grosse verrucosa; perist. d. breviusculi lati 32 pallidi obtusi, apice subincurvi, medio rubiginoso-striati.

Patria. America centralis, Aquacate in Costa Rica, alt. 1500′: A. S. Oersted m. Novbr. 1847 deoperculatum legit.

Sectio V. **Eupolytrichum** C. Müll. — Plantae robustae simplices vel ramosae; folia juniperoidea plus minus stricta et imbricata; theca cubica 4—6 angulata, basi apophysi discoidea inaequalis.

Non satis notum.

1. **P. Swartzii** Hartm. (Sk. Fl. Ed. V. p. 361.); folia subulata tenuiter serrulata, siccitate cauli appressa; theca 4-angularis subcubica, appendiculo sat evidenti. †.

P. alpestre Sw. et Hartm. Sk. Fl. Ed. IV., quod autem nomen varietatem *Polytr. juniperini* rectius significat.

Patria. Suecia, in terra humida Holmiae sec. specimina, quod dedit Swartz. Ad Forsbacka Gestriciae, in insulis. Norvegia, ad Kongsberg: Holmgren.

A *P. communi* distinguitur theca brevi, latitudine longitudinem aequante, foliis minoribus, angustioribus minusque arcuatis, statu sicco cauli arcte appressis, appendice denique non ita a theca sejuncta.

Gen. X. **Dawsonia** R. Br. I. p. 225.

Calyptra *Polytrichi.* Perist. simplex, ciliis numerosis capillaribus rectis in cylindrum convolutis penicillatum.

Gen. XI. **Lyellia** R. Br. I. p. 227.

Calyptra dimidiata nuda *Catharineae.* Peristomium nullum.

Melius forsan sectio propria generis *Catharineae.*

Trib. XIV. BRYACEAE. I. p. 228.

Areolatio folii prosenchymatica, pro more rhomboidalis, chlorophyllosa.

Gen. I. **Mielichhoferia** Hsch. I. p. 229.

Calyptra dimidiata. Perist. nullum vel simplex internum: dentes 16 aequidistantes in membrana plus minus exserta positi pallidi pro more filiformes. — Theca lateralis.

1. Theca operistomata.

2b. **M. nana** C. Müll.; dioica? caulis cespitosus erectus subbiuncialis subsimplex, basi nudus; folia erecta arcte

imbricata, *ovata acuminata* subintegerrima, nervo evanescente; perichaetia brevissima basilaria; theca in ped. cespitem vix superante *erecta*, *dein horizontalis*, pyriformis, *hinc gibba*, operc. *minuto convexo*; peristomii *membrana brevissima scariosa*, *annulum vix superans*, *irregularis*. †.

Schizhymenium nanum Tayl. Lond. Journ. of bot. 1848. p. 191.

Patria. Monte Pichincha vulcanico Andium Quitensium: W. Jameson, Dec. 1846.

Ex obs. auctoris *M. Eckloni* affinis. Notis cursive impressis a *M. Schiedeana* et *hymenostoma* sat distincta.

Gen. II. **Leptochlaena** Mont. I. p. 236.

Calyptra et perist. duplicis internum *Mielichhoferiae*, externum bryoideum. — Theca lateralis.

Cum *Orthodontio*, sectionem propriam constituens, inter *Mielichhoferias* sedem melius tenet.

Gen. III. **Orthodontium** Schw. I. p. 237.

Calyptra et peristomium duplex *Leptochlaenae*. — Theca terminalis.

Cum *Leptochlaena* ad *Mielichhoferiam* rectius accedit, ubi sectio *Orthodontium* theca terminali distinguitur.

1. Folia valde patula.

3. **O. infractum** Dz. et Molkb., cui diagnosis est *O. sulcati* in Synopsi I. p. 239.

Patria. Java, monte Gédé, ubi in cacumine montis Sedaratoe legit Korthals.

3b. **O. sulcatum** Hook. et Wils. (in Hook. Ic. Pl. Rar. t. 739. B.); a praecedente differt: statura pusilla bilineari, foliis distinctius recurvis excurrentinervibus integerrimis, theca inclinata elliptico-oblonga, perist. dentibus ext. oblongis, internis externos vix superantibus lanceolatis. ½.

Patria. Nova Hollandia, ad Fl. Swan River: J. Drummond.

4. **O. Australe** Hook. et Wils. I. p. 239.
Fl. Antarct. II. p. 412. t. 153. f. 5.

Gen. IV. **Bryum** Dill. I. p. 241.

Calyptra dimidiata. Perist. duplex; externi dentes 16 lanceolati, transversim trabeculati, intus cristato-lamellosi; interni membrana sedecies carinata, in dentes 16 carinatos rarius obsoletos et cilia interposita perfecta vel rudimentaria obsoleta producta. Theca terminalis.

Clavis analytica e peristomio ducta.

B. **Brachymenium** Hook. I. p. 242.

1. Folia julaceo-imbricata.

6b. **Br. smaragdinum** C. Müll. 114 b.

2. Folia plus minus patula.

a. *Folia marginata.*

9b. **Br. Magellanicum** C. Müll. 131 b.
9c. - **patulum** C. Müll. 131 c.
10b. - **crinitum** Mitten. 132 b.
12b. - **Jamesoni** C. Müll. 134 b.
12c. - **cristatum** C. Müll. 134 c.
12d. - **Regnellii** C. Müll. 134 d.

b. *Folia immarginata.*

β. Integra.

22b. **Br. capillifolium** C. Müll. 129 b.
22c. - **imbricatifolium** C. Müll. 129 c.

D. **Pohlia** Hdw. I. p. 242.

2. Inflorescentia monoica.

a. *Folia lata.*

32b. **Br. Algovicum** Sendtn. 44 b.

3. Inflorescentia dioica.

b. *Theca regularis.*

β. Folia excurrentinervia.

52b. **Br. imbricatulum** C. Müll. 100 b.

52c. **Br. Wilsoni** Mitten. 144b.

E. **Webera** Hdw. I. p. 243.

2. Inflorescentia monoica.

b. *Antheridia in axillis foliorum libera.*

63b. Br. Oerstedianum C. Müll. 154b.

66b. - spectabile C. Müll. 157b.

3. Inflorescentia dioica.

a. *Folia nervo excurrente vel evanido.*

73b. Br. Lescurianum Sulliv. 148b.

76b. - tenellum Schimp. 76b.

76c. - limbatum C. Müll. 85b.

F. **Bryum** Dill. I. p. 245.

3. Inflorescentia dioica.

a. *Folia julaceo-imbricata.*

α. Mollia.

106b. Br. plagiopodium Schimp. 76d.

106c. - Liebmannianum C. Müll. 76e.

c. *Folia patula in caulis longitud. sparsa.*

α. Folia confertius imbricata.

1. Folia stricta.

128b. Br. hemisphaericarpum C. Müll. 108b.

2. Folia plus minus torta.

α. Densiuscule imbricata.

130b. Br. Wagneri C. Müll. 59b.

β. Laxe imbricata.

138b. Br. Zollingeri Dub. 17b. cf. Syn. I. p. 247. sub No. 164!

Bryа incertae sedis.

Ad f. 3. a. α.?

146b. Br. concinnatum Spruce 99b.

Cujus sectionis?

166. Br. Antarcticum Hook. et Wils. 76c.

167. - tophaceum Mont. 88b.

Species secundum affinit. natur. dispositae.

Sectio I. **Platyphyllum** C. Müll. I. p. 247. — Plantae laxifoliae mnioideae elatae robustae; folia latissima spathulata, nervo basi crassissimo praedita, margine basi tantum revoluta; theca cylindrica pro more mnioidea horizontalis v. pendula.

Sectio II. **Eubryum** C. Müll. I. p. 252. — Plantae dense et late cespitosae plerumque tomentosae plus minus elatae saepius mnioideae; folia late ovalia, basi vel omnino margine distincte revoluta; theca pyriformis inclinata, horizontalis v. pendula.

1. Folia apice caulis densiora in rosulam congesta lata.

17b. **Br. Zollingeri** Dub. (in Moritzi. Syst. Verz. p. 133.); *dioicum; Br. Neelgheriensi* simillimum, sed *vix purpurascens*, folia e basi *angustissima late ovata, haud late oblonga*, acumine brevi reflexiusculo torto terminata, nervo *basi tantum purpurascente, superne flavo-virente*, late *flavide* marginata et *flavide* argute serrata, *chlorophyllosa;* perich. intima multo breviora anguste lanceolata cuspidata flavida serrata immarginata; theca in ped. elongato rubente horizontalis, *pyriformis*, operc conico brevi.

C. Müll. Syn. I. p. 340 sub Bryis incertae sedis.

Patria. Java: Zollinger. No. 1944.

Fructum maturum non vidimus.

3. Folia dense imbricata. Plantae humiles, innovationibus tantum gracilescentes.

d. *Peristomium Pohliae.*

α. Inflorescentia hermaphrodita.

42. **Br. purpurascens** Br. et Sch. I. p. 270.

Patria. Insula Melville: Sabine.

43. **Br. Archangelicum** Br. et Sch. I. p. 271. — Hermaphroditum vel monoicum!

β. Inflorescentia monoica.

44b. **Br. Algovicum** Sendtn. (in litteris!); *monoicum;* habitus *Br. cernui*, tomentosum; folia caulina late ovata parum acuminata, nervo crasso viridi basi purpurascente in aristam longiusculam denticulatam exeunte, parum ca-

ext. angustis luteis v. rufescentibus, int. gustissimis valde hiantibus, ciliis rudiment

Patria. In alpibus Bavaricis Algovici in cacumine montis, alt. 7152′: Sendtne

A *Br. cernuo* inflorescentia monoica *Pohliae*, a *Br. Archangelico*, ut videtur s resc. monoica et foliis constanter et ubiqu tis distat. — Flos masc. in innovatione c lis gemmaceus, fol. perig. brevioribus longi margine vix vel haud revolutis, anth. tu aureis mixtis.

f. *Peristomium Bryi.*

β. Inflorescentia monoica.

55. **Br. cirrhatum** Hoppe et Hsch. I. p

Patria. Pyr. centrales, in humidis g quierry et Port de Bénasque: Spruce.

57. **Br. pallescens** Schw. I. p. 279. — maphroditum!

γ. Inflorescentia dioica.

59b. **Br. Wagneri** C. Müll.; brevicaule, pluribus rectiusculis flaccidis tenuibus inf lide virescentibus *vix torquescentibus* valde caulis fertilis elongate lanceolato-acumina nera laxe areolata *integerrima immargi* haud revoluto, nervo purpurascente exced

Patria. Columbia, Cumbre de Caracas, 3000′ alt., ubi 1848 legit Wagner, hortulanus Halensis.

A *Br. capillari* simillimo notis illustratis facile distinguitur.

60. **Br. platyloma** Schw. I. p. 282.

Br. Mülleri Spruce in Musc. Pyren. No. 138 et in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 160. Est *Br. Donnianum* Grev. in Synops. I. p. 167! E speciminibus Spruceanis a *Br. platylomate* haud differt, quum marginis folii fabrica in hacce specie variet. — *Br. insulare* De Not. Spic. p. 7. et Syllab. p. 128 ex animadv. Cl. Montagne in litteris! huc, nec ad *Br. capillare*, ut Synops. nostra I. p. 281 dubie indicat.

Patria. Pyrenaei centrales, reg. montosa, in rupibus humidiusculis prope pagum Pierrefitte: Spruce. Pyren. occid., in terra arenosa Agri Syrtici prope St. Sever sterile: Spruce. Anglia in Sussex: Mitten et Jenner fertile legerunt.

61. **Br. obconicum** Hsch. I. p. 282.

Patria. Pyren. occid. et centrales, ad muros haud infrequens, Jurancon, Bagès, Arreau etc.: Spruce, Bagnères: Philippe.

Sectio III. **Amblyophyllum** C. Müll. I. p. 286. — Plantae gregariae vel dense cespitosae; folia laxe imbricata, orbicularia, usque ad apicem quin imo fere patelliformi-concava, e cellulis quadrato-rhombeis laxis reticulata, basi raro margine revoluta, superne plerumque involuta, abruptinervia; theca pendula plus minus pyriformis.

68. **Br. latifolium** Br. et Sch. I. p. 286.

Weisia fornicata Brid. I. p. 365, in Megapolit. Ducatu e spec. auctoris huc revocanda!

Patria. In Megapolitani Ducatus fluviorum ripis: Blandow. In Suecia: Ångström in litteris!

69. **Br. cyclophyllum** Br. et Sch. I. p. 287.

Patria. In Suecia: Ångström in litteris!

Sectio IV. **Arcodictyon** C. Müll. I. p. 288. — Plantae cespitosae humiles; Folia subdense imbricata ovalia valde concava, margine e cellulis pellucidis teneris, plerumque basi purpurascenti-

76b. Br. tenellum Schimp. (in litte
humile; ramulis subjulaceis; folia dense i
concava integerrima,| excurrentinervia,
perich. majora, interna lanceolata, nervo
nido; theca in ped. semiunciali cernua subu
pyriformis, brevicolla, fusca, late annulat
conico; perist. Weberae. ☨.

Patria. Mexico, Pico de Orizaba inte
Liebmann.

Proxime ad *Br. cellulare* et *Ludwigii*
et peristom. habet, accedit.

Sectionis incertae.

76c. Br. Antarcticum Hook. et Wils. (
p. 414. t. 153. f. 6.); *monoicum;* caulis b
lus, inferne radiculosus, ramosus cespitosu
conferta imbricata, erecto-patentia, late
acuminata, concava, subdenticulata, rufe
diaphana, nervo latiusculo rubello sub apice
gine plano, cellulis subquadratis; perich.
acuminata; ped. brevis ruber. ☨.

Patria. Insula Cockburn Island nuncu
lat. 64° S., long. 57° W.

Fructificatio tantum juvenilis observat

76d. Br. plagiopodium Schimp. Ci

apice evanido; theca in ped. flexuoso superne arcuato pendula, clavata, longicolla; perist. extern. *Br. argentei*, interno pallido perforato, ciliis singulis. †.

Patria. Mexico, M. Orizaba: Liebmann.

76e. **Br. Liebmannianum** C. Müll.; *dioicum*, humile; ramulis teretibus vel clavatis fragilibus; folia imbricata, apice recurvo, cordato-ovata, mucronata, concava, integra, nervo solido viridi, cellulis sat magnis chlorophyllosis; perich. late lanceolata; theca in ped. elongato tenui obliqua vel horizontalis, clavata, rufo-brunnea, solida, brevicolla, operc. brevi depresso conico, annulo lato revolubili; perist. ext. d. anguste lineali-lanceolati, subulati, pallide lutescentes, interni: membrana lata hyalina, processibus pertusis, ciliis singulis apice appendiculatis. †.

Br. brevicaule Schimp. in litteris! sed nomen jam abusum.

Patria. Mexico, M. Orizaba: Liebmann.

Flos masc. *Br. argentei*, cui affinibusque auctor adnumeravit.

Sectio V. **Apalodictyon** C. Müll. I. p. 291. — Plantae humiles dense imbricatae graciles. Folia stricta ovato-lanceolata, margine vix vel paulisper revoluta, carinato-concava, pellucide minute et tenelle interdum laxiuscule reticulata, nervo crasso, plerumque flavo, evanido, excurrente vel in aristam crassam flavam producta; theca pendula dolioliformis vel plus minus oblonga vel pyriformis.

1. Nervo evanido vel excurrente.

b. *Peristomium Weberae.*

85b. **Br. limbatum** C. Müll.; *dioicum;* gregarie cespitosum remotifolium sordide viride subsimplex gracillimum pusillum; folia caulina remota, siccitate crispula, minuta, e basi brevissima angustiore oblongo-ovalia, obtuse acutata, planiuscula, margine parum revoluto, *e cellulis laxiusculis longioribus pachydermibus indistincte late limbato, superne crenato*, nervo rufescente crassiusculo excurrente, stricto carinato, cellulis laxiusculis parvulis pachydermibus, rufescenti-viridibus; perich. *angustissime lingulata obtuse acuta;* theca in ped. *tenuissimo elongato atro* horizontalis v. nutans, *minutissima, e collo longius-*

culo angustissimo oblonga, annulata, operc. conico brevissimo; perist. parvi d. ext. breviusculi subangusti lutescentes, intus valde cristati, int. aequilongi breves hiantes laeviusculi angusti, ciliis binis cohaerentibus subrugulosis illos subaequantibus.

Patria. America centralis, Costa Rica, in reg. montosa inter 5000—8000 ped. elevationis, inter *Bartram. sphaericarpam* leg. A. S. Oersted mens. Febr. 1848.

Br. turbinatum in minima statura quasi referens, notis cursive impressis ab *Apalodictyiis* distinctum.

d. *Peristomium Bryi.*

88 b. **Br. tophaceum** Dur. et Mont. (Ann. d. sc. nat. XII. 1849. p. 319.); *dioicum, laxe cespitosum et laxissime cohaerens,* sordide viride et lutescens, subrobustum; caulis crassiusculus rufus, innovationibus gracilioribus parce ramosus, *inferne laxe foliosus, apice subrosulate gemmaceus;* folia caulina siccitate conferta, madore erecto-patentia, *latiuscule ovata breviter obtuse acuminata,* aequaliter concava, *immarginata,* margine erecta integra, nervo crassiusculo rubenti-flavido in acumen excurrente percursa, e cellulis longiuscule rhomboidalibus, basi quadratis, amoene hyalinis vel parce chlorophyllosis areolata.

Patria. Algeria, in rivulis prope Tiaret: Durieu.

A *Br. marginato* affini notis designatis longe refugit. Sterile tantum visum. Flos femineus terminalis, foliis caulinis similibus at tenerioribus, paraphysibus validis numerosissimis *ramosis.*

90. **Br. Tozeri** Grev. (Scot. Crypt. Fl. t. 285.). I. p. 298.

Patria. Pyr. occ., in regione plana et montosa inferiore, in argillaceo-arenosis circa Pau et St. Sever, in rupibus ophiticis Sti. Pandelon prope Aquas Tarbellicas: Spruce auctumno et vere fertile legit.

93. **Br. Crügeri** Hmp. I. p. 300.

Patria. Columbia, Cumbre de Caracas, alt. 3000 pedum: Wagner 1848.

Peristomium ignotum.

99b. **Br. concinnatum** Spruce (in Musc. Pyren. No. 121.); *dioicum;* pusillum cespitosum; cespites in parte inferiori tomento radiculoso cohaerentes; caulis subuncialis erectus v. ascendens, *e basi ipsa julaceus gracillimus filiformis*, ramis nonnullis teretibus plerumque simplicibus, inferne rubellus, superne viridis; folia semper erecto-appressa, late *ovata et ovali-lanceolata, aequaliter carinato-concava*, nervo flavido subtenui *in apiculum brevissimum subrecurvum excurrente*, margine erecto subintegerrimo, e cellulis anguste rhombeis amoene virentibus basi laxioribus pellucidis quadratis areolata.

Spruce in Ann. and Mag. of Nat. Hist. 1849. Musc. Pyr. No. 141.

Patria. Pyrenaei occid., in rupibus humidiusculis ad viam quae ducit a pago Pierrefitte ad opp. Cauterets; Pyr. centrales, in via cava ad pedem montis Superbagnères prope Bagnères de Luchon: Spruce. Anglia, ad catarractam Caldron Snout dictam fl. Tees, mense Julii 1843: Spruce. In reg. montosa inferiore.

Pl. feminea hucusque observata, foliis elongato-lanceolatis subplanis, interioribus minoribus. — *Br. julaceo* habitu simillimum, sed structura folii interna longe distans, *Br. Blindii* affinius, sed notis laudatis certe recedens et distinctissimum.

2. Nervo in aristam producto.

a. *Peristomium Pohliae.*

100b. **Br. imbricatulum** C. Müll.; dioicum, humile, cespitosum innovationibus nonnullis fastigiatis erectis statu humido teretiusculis dense imbricatis ramosum, viride, inferne ferrugineum; folia caulina ovata, nervo rubro tenuiusculo in cuspidem vix reflexam tenuem longam producta, integerrima, margine parum revoluta, e cellulis mediocribus teneris subpellucidis areolata; theca in ped. *elongato* flexuoso *pendula ovalis ampliuscula brevicolla*, operculo conico; perist. d. ext. *late-lanceolati* subulati, interni *parum* breviores lanceolati *integri* valde carinati hiantes, ciliis rudimentariis Pohliae.

Patria. Himalayae montes, ubi lgt. Dr. H... meister.

A *Br. imbricato* proximo notis cursive impressis d... fert. Pl. mascula femineae intermixta simplex, flore... minali, foliis perig. ovatis seminervibus v. enervibus ... rubris; antherid. majusculis, paraphysibus crassis flav... mixtis.

c. *Peristomium Bryi.*

104. **Br. atropurpureum** Wahlenb. I. p. 306.

Br. gracilentum Tayl. ex animadv. Cl. Spruce forma gemm...

108b. **Br. hemisphaericarpum** C. Müll.; dense ce... tosum *pusillum* julaceum lutescens tenuiusculum; ... *brevis* julaceus, apice subgemmaceo-acutus, parce ra... sus, ramis *densis appressis;* folia caulina julaceo-c... ferta *latius* ovato-lanceolata, carinato-concava, ... *crassiusculo* in cuspidem *brevem tenuiusculam* prod... flavido, margine e basi usque ad apicem revoluta, lon... et pellucidius areolata, subintegerrima, *inferiora* ... *ovata obtuse acuta excurrentinervia;* perich. intima ... nora lanceolata longe cuspidata; theca in ped. brev... nutans, *dolioliformi-ovalis, lutescens, deoperculate* ... *gide hemisphaerica macrostoma, saepius pedunculi* ... *sione ascendens,* brunnea, *semper collo destituta,* ... conico minori; perist. breve.

Patria. Himalayae montes: Dr. Hoffmeister.

A *Br. versicolori* proximo caracteribus desig... refugit.

Sectio VI. **Dicranóbryum** C. Müll. I. p. 309. — Pl... gracillimae tenellae; folia dense imbricata lanceolata, margine ... revoluta, minute et dense areolata, carinato-concava, nervo ... liter crasso flavo pungentia, integerrima; theca erecta, ore ... tata, plus minus urceolata, Ångströmiis tenellis aemulans.

114b. **Br. smaragdinum** C. Müll.; *dioicum;* late cesp... tosum compactum inferne tomentosum humile *subjulaceum* ... *amoene smaragdinum* parce fertile, foliis ovatis pungen... tibus; fol. perich. late ovato-lanceolata, nervo longe ex... cedente pungentia integerrima immarginata; theca in p...

longiusculo flexo flavo *ventricose ovalis crassiuscula* olivacea, operculo brevi conico purpureo, ore valde constricta, annulo lato; perist. dentes ext. anguste subulati, *interni rudimentarii hiantes* in membrana longa rugulosa positi, ciliis rudimentariis.

Patria. Venezuela, prov. Caracas altit. 4000′: **Funck et Schlim** in Linden Coll. No. 362. 1846. Januar.

Species pulcherrima, notis cursive impressis ab omnibus congeneribus facile discernibilis, *Dicranobryi* sectionis Americae meridionalis prima. *Br. exili* proximum.

Sectio VII. **Argyróbryum** C. Müll. I. p. 313. — Plantae plus minus cespitosae plerumque julaceo-foliosae; folia dense imbricata, minute areolata, mollia, argentea, chlorophyllo superne destituta; theca pendula ovalis.

Sectio VIII. **Sclerodictyon** C. Müll. I. p. 315. — Plantae laxe cespitosae valde ramosae; folia valde concava fere cymbiformia, e cellulis firmis, partim vel omnino inanibus, rhombeis, plus minus latis non angustis firmis areolata, coriacea rigida, nitida; theca pendula plus minus oblongo-pyriformis.

a. *Folia julaceo-imbricata.*

121. Br. julaceum Sm. I. p. 315.

Patria. Pyren. centrales, reg. subalpina, ad rupes humectas juxta catarractam la Cascade du Coeur dictam: **Spruce.**

b. *Folia laxe imbricata.*

125. Br. blandum Hook. et Wils. I. p. 318.

Fl. Antarct. I. p. 134. t. 60!

126. Br. laevigatum Hook. et Wils. I. p. 319.

Fl. Antarct. II. p. 415. t. 154. f. 3.

126 b. Br. annulatum Hook. et Wils. (Fl. Antarct. I. p. 134. t. 60.); *dioicum?* caulis cespitosus bilinearis *perbrevis*, ramis confertis; folia conferta, patentia subrigida, *ovato-lanceolata acuta* integerrima concava, nervo crasso *continuo vix excurrente*, sicca non crispata; theca in ped. brevi pendula *parvula* turgide ovalis, operculo conico, annulo *latissimo;* perist. d. ext. lutei trabeculati, trabeculis *remotis.* †.

Patria. Insula Campbelli, in planitie raro: J. D. Hooker.

Ex animadv. auctorum *Br. balanoidis* Tayl. mst. (nobis nomine tantum noto,) varietatem putant, foliis rigidis, forma alia praeditis, annulo lato et dentium trabeculis distantibus diversum. Quoad caracteres laudatos a *Br. orthoclado, blando* atque *laevigato* longe diversum.

Sectio IX. **Orthocarpus** C. Müll. I. p. 319. — Plantae dense cespitosae vel compactae; folia acuminata plerumque pilifera, elongate anguste et paulisper laxe areolata, mollia, margine raro revoluta, plerumque plana concava, saepius cochleariformia; theca erecta pyriformis. Peristomium omnium congenerum *Brachymenii.*

1. Folia patula erecto-appressa.

a. *Folia immarginata.*

129 b. **Br. capillifolium** C. Müll.; *dioicum;* compacte cespitosum, radiculis rufis tomentosum; caulis innovationibus dichotome ramosus, innovationibus plurimis sterilibus; folia conferta laete viridia nitida, madore patentia, sicca imbricata et subcontorta, ramea obovalia et subspathulata, comalia ovali-oblonga et late lanceolata, omnia concava, margine integerrima, ex apice obtuso in apiculum piliformem producta, nervo tenui rufescente; perich. lanceolata tenuissime acuminata; theca in ped. recto unciali erecta, oblongo-pyriformis et clavata, brevicolla, opaca, ore angustata, annulata, operc. conico minuto; perist. ext. d. lanceolati obtusi dense articulati crocei, humore patentes, int. membrana lutescens libera, dentibus dimidio breviore, subplicata, margine inaequali nec dentata. †.

Brachymenium capillare Schimp. in litteris!

Patria. Mexico, Huatusco, Donaguia aliisque locis: Liebmann. *Aestate.*

Pl. masc. fertili similis, florib. capituliformibus, foliis perigonialib. ovatis, evanidinervibus, in capillum productis, antherid. oblongis brevi-pedicellatis, paraphys. filiformibus.

129 c. **Br. imbricatifolium** C. Müll.; *dioicum; Br. capillifolio* simillimum, sed cespites densiores, caulis hu-

milior, folia densiora, siccitate arctius imbricata latiora, in innovationibus sterilibus ovata, nervo sub apice evanido vel rarius subexcurrente; theca curvula, perist. d. majores, densius articulati, int. membrana externo adnata; sporis majoribus. †.

Brachymenium imbricatum Schimp. in litteris!

Patria. Mexico, in summo Pico de Orizaba: Liebmann.

b. *Folia marginata.*

131 b. **Br. Magellanicum** C. Müll.; *hermaphroditum*, humile laxe cespitosum innovando ramosum; caulis ramique apice congesto-foliosi, inferne subaphylli radiculosi; folia erecto-patentia laxe reticulata lanceolata, margine reflexiuscula lenissime submarginata, apice minutissime denticulata, nervo basi valde incrassato longe excurrente aristata, theca erecta *oblongo-cylindrica longicolla microstoma* annulata, peristomio pohlioideo, operc. conico-hemisphaerico apiculato. †.

Peromnion Magellanicum Sulliv. in Hook. Journ. of bot. 1850. p. 316.

Patria. Tierra del Fuego ad fretum Magellanicum: United States Exploring Expedition under the command of Cap. Ch. Wilkes.

131 c. **Br. patulum** C. Müll.; *monoicum!* laxe cespitosum; caulis $^1/_2$—$^3/_4$ unciae altus, ad comam usque radiculosus; folia inferiora remota, minuta, appressa, ovato-lanceolata acuminata, ferruginea, pellucida evanidinervia; comalia multo majora, conferta patula, spathulata, nervo ferrugineo *in mucronem excedente*, margine plus minus conspicuo circumducta, apice remote denticulata, intense viridia, opaca, sicca complicata tortuosa; perich. minora, vix vaginulam superantia erecta; theca in ped. unciali tenui erecta, *oblonga* leptoderma, badia, *collo sporangio duplo breviore*, siccitate sub ore leniter constricto; perist. majusculi ext. d. lanceolato-subulati, remote articulati, pallide ferruginei, humore erecto-patentes apice incurvi, siccitate omnino incurvi, int. membrana dentibus duplo

brevior, plicata, *margine inaequali*, laxe reticulata, p... ctulata. †.

Brachymenium patulum Schimp. in litteris!

Patria. Mexico, Mirador, ad arbor. truncos Jung... mannüs intermixtum: Liebmann, m. Julii theca... perculatas legit.

A *Br. Peromnio* notis laudatis jam longe differt.

132 b. **Br. crinitum** Mitten (Lond. Journ. of bot. ... p. 56!); dioicum, *dense cespitosum* fasciculatim ramos... folia caulina ovato-oblonga *latiora* concava, nervo in ... lum flexuosum *albidum* excedente cuspidata; perich... ceolata, *margine reflexa*, e cellulis laxis reticulata; th... in ped. gracili ovato-cylindrica, *longior*, operc. co... brevissimo, perist. *B. Hornschuchiani.* †.

Patria. Prope Quito: W. Jameson.

A *Br. Hornschuchiano* statura humiliori et notis la... datis ex auctore differre dicitur. An folia marginata?

134 b. **Br. Jamesoni** C. Müll.; caulis laxe cespi... erectus subramosus flaccidus pallide viridis subl... cialis basi rufescenti-tomentosus; folia imbricata ere... patentia, *sicca minus conforta* subsecunda late ov... lanceolata marginata serrulata, nervo *ante apicem ... nido*, margine erecto, parum concava; theca in ped. ... gato laevi erectiuscula *exapophysata elliptico-cylindr...* laevis, bilinearis, operc. *elongate conico* obtuso; peris... ext. opaci rufescentes apice hyalini, int. in membr. ca... rata irregulariter laciniati. †.

Brachymenium Jamesoni Tayl. Lond. Journ. of bot. ... p. 282.

Patria. Monte Pichincha: W. Jameson, 8. Au... 1847.

Br. Hookeri auctor affine declaravit. Ab hacce spe... cie notis cursive impressis differre dicitur.

134 c. **Br. cristatum** C. Müll.; *dioicum!* cespites la... xiusculi subhumiles robusti; caulis semipollicaris inae... vando ramosus prostratus ascendens; folia caulina sordid... viridia, inferne laxe superne sensim dense et apice sub...

comose imbricata, siccitate tortilia, e basi angustiore longiuscule oblongo-ovata, nervo crassiusculo *flavido*, dein rufescente, carinato excedente longius *flavide cuspidata, longiora, angustiora*, margine ultra medium revoluto, superne sensim erecto late flavide marginato, *undulato*, remote *distinctius irregulariter ciliate dentato*, cellulis basi laxiusculis valde chlorophyllosis, utriculo primordiali valde repletis, dein pellucidis teneris; perich. intima multo minora, anguste lanceolata, margine erecta denticulata, *longius flavide* aristata; theca in ped. elongato tortuoso rubente erecta, interdum nutans, *majuscule clavato-pyriformis longicolla* fusca late annulata, ore minori, operc. hemisphaerico brevi; perist. d. ext. *latissime* lanceolati, linea longitudinali exarati, *trabeculis valde prominentibus et cristam pulcherrimam maxime evolutam sistentibus et apice brevi excavato ruguloso haud cristato instructi*, interni: membrana *altissima* pallida rugulosa, apice in dentes secedentes inaequales brevissimos fissa, ciliis binis rudimentariis interpositis.

Patria. India Orientalis, Bombay: Kegel ex horto dom. Van Houtte benevole communicavit; inter *Neckeram procumbentem*, *angustam* et *Macromitr. sulcatum* viget.

Flos masc. terminalis; fol. perig. parvula, e basi latiuscule ovata convoluta breviter acuminata, excurrentinervia, immarginata, integra. — A *Br. brevicauli* caracteribus laudatis longe distat et praesertim ob dentes ext. mirabiliter cristatos pulcherrima species.

Incertae sedis.

134d. **Br. Regnellii** C. Müll.; dioicum, laxe cespitosum subhumile virens, basi fusco-tomentosum subsimplex; caulis firmus, inferne nudus, fertilis apice brevissime fastigiatim divisus strictus; folia caulina siccitate contorta, madore erecto-patula, *plana* vel parum cava, *obliqua*, *late oblongo-lanceolata*, *ad medium paulisper ovaliformia*, *obtuse acuta*, nervo flavente carinato subtenui excurrente vel evanido percursa, margine basi revo-

luta, superne e cellularum flavidarum seriebus 1—2 veluti marginata et *serrulata*, e cellulis majusculis rhombeis utriculo primordiali valde repletis reticulata; perich. juniora *ligulato-obtusa* subintegra. Caetera desunt.

Brachymenium Regnellii Hmp. Linn. XXII. p. 582.

Patria. Brasilia, prov. Minarum generalium pr. Caldas: Dr. Regnell. Coll. 375.

Verisimiliter *Orthocarpus*, *Br. Hornschuchiano* haud dissimilis, notis laudatis facile discernibilis.

Sectio X. **Senodictyon** C. Müll. I. p. 325. — Plantae plus minus humiles laxe cespitosae; folia superne in comam plerumque apertam congesta, angusta plus minus lanceolata, e cellulis angustissimis densis firmis plerumque elongatis et inanibus viridibus areolata, medio margine revoluta, nervo tenui evanido vel excurrente, plerumque nitida, serrulata et scariosa, carinato-concava; theca inclinata angusta plus minus cylindrica et longicolla vel ovalis pendula.

2. Perist. Pohliae.

144b. **Br. Wilsoni** Mitten (Lond. Journ. of bot. 1851. p. 55!); dioicum, dense cespitosum; caulis longissimus gracillimus ramosus, inferne radiculis fuscis intertextus; folia inferiora ovato-acuminata evanidinervia, superiora sensim longiora, comalia lineari-lanceolata integerrima nitida, nervo crasso percurrente, cellulis laxis angustis; theca in ped. elongato gracillimo erecta pyriformis, membranacea laevis, primum pallida demum fusca, operc. breviter conico concolori, perist. ext. pallidum, int. pertusum, ciliis nullis (?). †.

Patria. Prope Quito: W. Jameson.

Br. pyriformi simillimum, longitudine *Br. Sphagni.*

3. Peristomium Weberae.

b. *Inflorescentia dioica.*

148b. **Br. Lescurianum** Sulliv. (Mem. of the Americ. Acad. of Arts and Sc. IV. p. 171.); *Br. pulchello* maxime simile, sed folia caulina oblongo-lanceolata; perich. multo longiora, intima linearia acuminata; omnia vix serrulata, nervo *crasso rufo excurrente*; theca *late annulata.*

Br. pulchellum Sulliv. Musc. Allegh. Exs. No. 101!

Patria. In terra limosa sylvarum Ohionis prope Cincinnati et Lancaster, ubi Leo Lesquereux legit, rarissimum; ad Columbus lectum copiose misit Sullivant.

149. **Br. Ludwigii** Spreng. var. *gracile* I. p. 333.

Patria. Pyren. centrales, reg. medialpina, in vicinia molium glacialium montis Crabioules: Spruce; secus ripas lacus Lehou: Philippe.

c. *Inflorescentia monoica.*

154b. **Br. Oerstedianum** C. Müll.; *monoicum;* antheridia et habitus *Br. longicolli* simillimi, sed folia *latiora, robustiora, basi laxissime reticulata,* parum falcata; theca *maxime clavata robustissima,* geniculato-inclinata, deoperculata vetusta maxime corrugata leptodermis fusca, operc. conico brevissimo, *in orificio minori posito;* perist. d. interni parum latiores teneriores, ciliis *ternis vel quaternis* plus minus elongatis.

Patria. America centralis, Costa Rica, reg. montosa, elev. 5000—8000′, mens. Febr. et Apr. 1847: A. S. Oersted.

Quoad thecam robustam *Br. crudo* haud dissimile.

157b. **Br. spectabile** C. Müll.; *monoicum; Br. integridenti* simillimum, antheridiis paucissimis, densiuscule cespitosum, sed theca *longissime pedunculata, longissime cylindrica, parum arcuata*, angustissima, late annulata, breviter conico-operculata; perist. interni dentes *latiores teneriores, parum perforati,* tenerrime subulati, minus rugulosi, ciliis *singulis* tenerrimis, nodosiusculis, rugulosis.

Patria. America centralis, Costa Rica, elevatione 5000—8000′: A. S. Oersted, mens. Febr. et Apr. 1847.

Ob formam thecae *Mielichhoferiam campylothecam* vel *basilarem* in memoriam redigens.

Trib. XV. DICRANACEAE. I. p. 341.

Folii cellulae prosenchymaticae, parenchymaticis saepius commixtae, rarius scabro-papillosae, alares

basilares pro more in ventrum congestae, vel [illegible] et superioribus multo laxius reticulatae.

Gen. I. **Blindia** Br. et Sch. I. p. 342.

Calyptra dimidiata. Peristom. nullum vel [illegible] plex: dentes 16 aequidistantes lanceolati [illegible] ticulati laeves tenues intus leviter trabeculati [illegible] rei cartilaginei.

a. Folia stricta.

α. Theca peristomata.

1. **Bl. acuta** Br. et Sch. I. p. 342.

Dicranum Seligeri Brid. e spec. Hb. Seligeri [illegible] *Dicranum fulvellum* Sm., ut Synopsis I. p. 371. dubie [illegible] tinet.

2. **Bl. stricta** C. Müll. I. p. 343.

Weissia stricta Fl. Antarct. II. p. 404. t. 152. f. 4.

3. **Bl. contecta** C. Müll. I. p. 344.

Weissia contecta Fl. Antarct. I. p. 127. t. 58.

β. Theca gymnostoma.

4. **Bl. Stylostegium** C. Müll. I. p. 345.

Gymnostomum subulatum Br. Germ. I. p. 147. t. 107 - [illegible] p. 106.

b. Folia crispula.

5. **Bl. tortifolia** C. Müll. I. p. 343.

Weissia tortifolia Fl. Antarct. II. p. 404. t. 152. f. 5.

6. **Bl. Antarctica** C. Müll. I. p. 344.

7. **Bl. crispula** C. Müll.; *monoica;* laxe pulv[illegible] subhumilis *lutescens* ramosa *laxifolia gracilior;* folia [illegible] lina crispula, *siccitate et madore distincte falcata,* [illegible] lanceolato-subulata, angusta, integerrima acuta, [illegible] *nunquam apice brevissimo hyalino terminata,* canalicu[illegible] concava, *ad subulam superiorem dorso tenuiter rugu*[illegible] [illegible] cellulis firmis minutis basi longiuscule rectangular[illegible] superne sensim minoribus distinctius quadratis, minus [illegible] [illegible] conflatis, alaribus *paucis planis laxius* [illegible] [illegible] cidulis reticulata, *viridiora*, angustinervia; [illegible]

rich. cylindraceo-convolutacea, subito acuminata, intima subobtusa, angustinervia, basi laxius reticulata; theca *longius pedunculata* ovalis parva, longe oblique operculata, fusca, nitidula, imperfecte annulata; perist. d. lanceolati, dense articulati, intense purpurei, apice pallidi, subrugulosi.

Weisia crispula Hdw. Sp. Musc. p. 68. t. 12. — Bryol. Europ. Fasc. 33—36. Weisiaceae, p. 9. t. 7. — Brid. I. p. 346. — *W. falcata* Nees et Hsch. Br. Germ. II. p. 71. t. 31. f. 10. — *Grimmia crispula* Sm. Fl. Brit. III. p. 1192.

β. atrata, foliis brevioribus, atratis. Br. Europ. l. c. — *W. crispula β. nigrescens* et *γ. atrata* Nees et Hsch. l. c. p. 67. t. 30. f. 15. 16.

Patria. In subalpinis et alpinis usque ad limitem supremam vegetationis per totam Europam et in America septentrionali: Drummond. No. 69. Var. *β.* in alpinis ad rupes irrigatas. — *Vere.*

A *Bl. Antarctica* notis cursive impressis longe differt.

8. **Bl. cirrhata** C. Müll.; *monoica;* laxe pulvinata, subhumilis lutescens v. virescens ramosa laxifolia gracilis; folia caulina crispula, *subreflexa, haud falcata, breviter* lanceolato-subulata, angusta, integerrima, acuta, *latiora,* canaliculato-concava, *margine e basi usque ad apicem distincte revoluta,* laevia, e cellulis *mollioribus, grosse quadratis, basi chlorophyllosis* rectangularibus, alaribus *minus distinctis* laxiuscule quadratis fuscidulis paucis reticulata, nervo *canaliculato* excurrente; perich. *vaginantia, haud convolutacea, breviter acuminata, haud obtusa;* basi laxe pellucide reticulata; theca *breviuscule pedunculata, subcylindracea, longiuscula, distincte annulata,* fuscidula, longe oblique operculata; perist. d. lanceolati, *magis regulares,* rufo-purpurei.

Weisia cirrhata Hdw. Sp. Musc. p. 69. t. 12. — Br. Europ. Fasc. 33—36. Weisiaceae, p. 9. t. 6. — Brid. I. p. 343. — *W. Dicksoni* Brid. Musc. Rec. II. I. p. 72. — *Grimmia cirrhata* Sm. Fl. Brit. III. p. 1189. — *Encalypta cirrhata* Sw. Musc. Suec. p. 25. — *Barbula cirrhata* Brid. Musc. Rec. II. I. p. 203. — *Azelia cirrhata* Ehrh. in litt. ad Hedwig. — *Leersia cirrhata* Willd. Prodr. Fl. Berol. n. 902. — *Dicranum cirrhatum* Timm. Prodr.

Fl. Megap. n. 783. — *Gymnostomum cirrhatum* Schrank. Baiers. Fl. II. p. 436. — *Mnium cirrhatum* L. Sp. Pl. p. 1576. — *Bryum cirrhatum* Gmel. Syst. Nat. II. p. 1631. — *Hypnum cirrhatum* Weis. Crypt. Gött. p. 207. — Bryum cirrhatum et stellatum tenuioribus foliis. Dill. Musc. p. 379. t. 48. f. 42.

Patria. Regione montosa ad saxa, tecta straminea truncosque arborum, per totam Europam. — *Aprili, Majo.*

A *Bl. crispula* caracteribus laudatis facile distinguitur.

Gen. II. **Eucámptodon** Mont. I. p. 345.

Calyptra dimidiata. Perist. simplicis dentes 16 aequidistantes, lati, carnosi, linea hyalina longitudinali et lineis transversalibus nonnullis exarati, madefacti horizontaliter incurvi, integri.

Gen. III. **Dicnémon** Schw. I. p. 346.

Calyptra campanulata. Perist. simplicis dentes 16 basi connati, ultra medium bipartiti.

1. **D. calycinum** Schw. I. p. 347.

Hollia myrmecodes Sieb. in Regensb. Bot. Zeit. 1826. p. 223, a Sieber e Nova Hollandia relata fide Schwägricheni in Suppl. II. II. 2. p. 175. huc revocanda.

Patria. Nova Hollandia: Sieber.

Gen. IV. **Pilopógon** Brid. I. p. 348.

Calyptra dimidiata. Perist. simplicis dentes 16 aequidistantes erecti longi in conum dispositi filiformes rugulosi integri, interdum linea media hic illic exarati, homomorphi, haud trabeculati.

2. **P. calycinus** Schimp. (in litteris!); dioicus; caulis gracilis, e basi decumbente erectus, rigidulus, fragilis; folia conferta erecta subflexuosa, lanceolato-subulata, ad subulam integra vel apice denticulata, nervo lato dorso canaliculato; perich. e basi vaginante subulata, intima in aristam longissimam producta; theca in ped. stricto straminео subunciali erecta, angusta cylindracea, tenuiter

membranacea, operc. rubello rectirostro, calyptra basi fimbriata ad thecae basin producta; perist. d. aequidistantes subulati, articulationibus et linea divisurali vix conspicuis; sporae minutae laeves. †.

Patria. Mexico, Laguna Taleo: Liebmann Febr. 1842 legit.

Gen. V. **Holomitrium** Brid. I. p. 349.

Calyptra dimidiata. Perist. simplicis dentes 16 aequidistantes, madefacti recurvi, lanceolati subulati, inferne trabeculati, linea media in crura duo cohaerentia raro secedentia filiformia rugulosa fissi, longe infra orificium oriundi. — Perichaetium cylindricum longissime exsertum. Inflorescentia monoica vel dioica.

5. **H. serratum** C. Müll.; *dioicum!* caulis e basi decumbente erectus, *ramis inaequalibus sub apice florifero egredientibus, fragilibus;* folia conferta, basi imbricata, patula, flexuosa, retrorsum vel sursum curvata, *haud raro subundulata,* siccitate laxe incumbentia et subtorta, *elongato-lanceolata,* concava, *basin versus margine recurva* et integerrima, apice plana et dentata, nervo semitereti excurrente, cellulis minimis superne rotundato-quadratis, basi elongatis; perichaetium magnum enneaphyllum, foliis internis thecam *longe superantibus,* pedunculum arcte vaginantibus, in subulam totam productis; theca in ped. recto erecta, cylindracea, tenuiter membranacea, operc. rostellato breviori, annulo duplici turgido magno hyalino; perist. d. 16 aequidistantes, ad basin bifidi, cruribus inaequalibus subulatis, *apice et saepius tota longitudine cohaerentibus,* remote articulatis, basi aurantiacis, apice hyalinis, mollibus et fragilibus; sporae minutae. †.

Cecalyphum serratum Schimp. in litteris!

Patria. Mexico, Pico de Orizaba: Liebmann.

Ex habitu omnino *Holomitrium*, e peristomio paulisper recedente, cruribus subsecedentibus *Holomitrium*

cum *Dicranis* conjungens? Notis cursive impressis ab omnibus congeneribus distinctum.

Gen. VI. **Dícranum** Hdw. I. p. 351.

Calyptra dimidiata. Perist. simplicis ext. dentes sedecim lanceolati, basi trabeculati, in crura duo profunde fissi, purpurei.

Sectio I. **Leucolóma** Brid. I. p. 352. — Folia margine albescente circumducta.

1. **D. Sieberianum** Hsch. I. p. 352.

Patria. In collibus Paramatta-Hügel nuncupatis: Hb. Kunzeanum.

5b. **D. Crügerianum** C. Müll.; *dioicum*; cespites humiles pallescentes mollissimi; caulis fragilis nigricans ascendens parce ramosus *tener*, *apice attenuato quidem*, *sed tamen brevissimo et laxissime folioso contorto*, *nunquam caudato*, vix subsecundo; folia caulina laxe imbricata valde cirrhata, madore patula, apice subsecunda, *angustissime* lanceolato-setacea, *basi distincte prominenti-auriculata*, e cellulis alaribus *in ventrum distinctissimum congestis*, *paucis*, *magnis*, *intense* et amoene aureo-fuscis, dein ad marginem albescentibus, reticulata, limbo albescente *angustissimo* circumducta, margine connivente hic illic undulata, dorso ubique tenerrime papillosa, nerve canaliculato angustissimo in subulam elongatam apice serrulatam excurrente, cellulis medio folii *nunquam opacis*, sed pallentibus, ubique fere minute rotundatis basi magis rectangularibus; perich. e basi longiusculo convoluta latiuscula, inferne laxe pellucide vel fusco-reticulata subito fere longe setacea; theca in ped. stricto tenero rubro firmo erecta, angustissime cylindrica aequalis, dentibus intense purpureis angustis lanceolato-subulatis, in crura duo ad medium fissis, inferne trabeculatis.

Patria. Insula Antillarum Trinidad, monte Tocuche, 28. Mart. 1847; Crüger.

A *D. Brideliano* proximo caracteribus laudatis sp. pulchra refugit.

5c. **D. subimmarginatum** C. Müll.; *D. Crügeriano* simillimum, sed *pusillum*, *apice breviter distincte attenuato* subincurvo praeditum; folia caulina breviora, angustissime lanceolato-subulata, *minus setacea*, summo apice serrulata, *inferne tenerrime ad subulam magis convolutaceam grossius papillosa*, *nunquam margine undulata*, *vix limbo albescente circumducta*, e cellulis *basi longiuscule rectangularibus*, superne parum majus rotundatis, alaribus *planis* paucis laxis fuscis reticulata.

Patria. America centralis, Costa Rica, inter elev. 5000—8000 pedum; inter Campylopodem specimen unicum sterile invenimus. A. S. Oersted legit.

Sectio II. **Oncóphorus** Brid. I. p. 355. — Theca cernua pro more strumosa.

1. Nervo serrato.

a. *Folia undulata.*

8b. **D. lophoneuron** C. Müll.; *D. undulato* maxime simile, sed folia *in acumen longum loriforme*, *margine grosse cilato-serratum producta*, *e cellulis laxiusculis*, *ubique parietibus interruptis firmioribus praeditis*, *nunquam omnino chlorophyllo repletis composita*, inferne integerrima et areolatione simili *D. undulati*, nervo ad acumen dorso *crista grosse ciliato-serrata sublamellosa* praedita; perich. e basi late vaginante convoluta laxe reticulatâ obtusa, *subito* in subulam loriformem *longam aequalem haud acutam minus et summo apice ciliato-serratam*, areolatione subulae folii caulini praeditam producta; theca in perich. exserto convoluto *solitaria*, in ped. elongato flexuoso rubro laevi.

Patria. Mexico, prov. Mechoacan, Cerro San Andres, m. Martii c. fruct. junioribus: v. Chrismar, salinarum praefectus, 1849 legit et Cl. Al. Braun communicavit.

b. *Folia aequalia.*

α. Folia scopario-imbricata.

12. D. convolutum Hmp. I. p. 358.

13. D. scoparium Hdw. I. p. 359.

14. **D. pallidum** Br. et Sch. I. p. 359.
15. **D. congestum** Brid. I. p. 360.
16. **D. majus** Sm. I. p. 360.
17. **D. robustum** Hook. I. p. 361.
Fl. Antarct. II. p. 406. t. 152. f. 3.
18. **D. dichotomum** Brid. I. p. 362.
19. **D. assimile** Hmp. I. p. 362.
20. **D. dicarpum** Hsch. I. p. 363.

β. Folia crispula cirrhata.

20 b. **D. Bruntoni** Sm. (Engl. Bot. t. 2509.); *cum;* pulvinato-cespitosum fastigiato-ramosum radi- sum virescens; folia caulina madefacta erecto-pat laxe imbricata, anguste complicato-lanceolata longe flexuosa, margine reflexa superne dentata, e cellulis dratis viridissimis, alaribus planis pellucidioribus long bus, in utraque pagina papillosis areolata, nervo scabriusculo excurrente; perichaetialia intima vagi basi laxius et tenuius reticulata, *superne subito* bre *acuminata, evanidinervia;* theca in pedunculo brevi flavido plus minus ovalis et erecta, *laevis* olivacea, brevi et operculo conico oblique rostrato basi aura perist. dentes *usque ad basin fissi cruribus purpur regularibus rigidis laevibus.*

Cynodontium Bruntoni Br. Europ. 33 — 36. p. 3. t. 1. — *cranum polycarpum* Hook. et Tayl. Musc. Brit. ed. I. p. 57. — *dymodon Bruntoni* eor. ed. II. p. 117. t. Suppl. 4. — *Did. rus* Kaulfuss in Sturm Fl. Germ. Crypt. Fasc. 16. — Brid. I.

Patria. In rupibus graniticis, porphyricis et a riis totius Europae. — *Majo, Junio.*

Flos masc. ad basin perichaetii positus, foliis p lato-ovatis obtuso-acuminatis obsoletinervibus, an diis longiusculis paraphysibus tenuibus pallidis mixtis. *D. polycarpo* foliis brevioribus et theca laevi, ab om congeneribus peristomio maxime irregulari, sed typice distante, facile distinguitur. Cellulae alares dicra marcescentes in foliis senioribus tantum distinctius ob

20c. **D. polycarpum** Ehrh. (Dec. No. 84.); *monoicum;* habitus *D. Bruntoni;* folia caulina anguste complicato-lanceolata *longiora* flexuosa, margine reflexa, superne denticulata, e cellulis quadratis viridissimis subrobustis, basi alaribus longioribus pellucidioribus, in utraque pagina papillosis areolata, nervo dorso scabro excurrente; perichaetialia intima vaginantia *longe acuminata canaliculata, nervo crasso excurrente* praedita, basi e cellulis longioribus laxioribus sed firmiusculis areolata, superne *subdenticulata;* theca in pedunculo breviusculo flavido plus minus ovalis et erecta *leviter striata* olivacea, collo brevi et operculo conico oblique rostrato basi aurantiaco; perist. dentes *longi robusti in crura duo regularia usque ad medium fissi, inferne lati, rubiginosi rugulosi.*

Br. Europ. Fasc. 37—40. p. 14. t. 2. — *Oncophorus polycarpos* Brid. I. p. 397. — *O. strumifer β. substrumosus* ej. p. 396. e spec. herbarii sui. — *Fissidens polycarpos* Hdw. Musc. Fr. II. p. 85. t. 31. — *Cecalyphum multiflorum* P. B. Prodr. p. 51. — *Bryum polycarpon* Hoffm. Deut. Fl. II. p. 37. — *Br. medium* Vill. Fl. Dauph. III. p. 878. — Bryum cirrhatum setis et capsulis brevioribus et pluribus. Dill. Musc. p. 378. t. 48. f. 41.

β. gracilescens; gracilius, foliis magis evanidinervibus et theca magis erecta. *Dicranum gracilescens* W. et M. Bot. Taschb. p. 184. — Brid. I. p. 441. — *D. mixtum* De Not. Mant. No. 52. et Syllab. Musc. p. 210.

γ. curviseta; pedunculus arcuatus, theca brevior valde sulcata. *Campylopus cirrhatus* Hsch. in Brid. I. p. 479. — *Dryptodon Campylopus* Brid. I. p. 773. — *Dicr. gracilescens β. curvisetum* Br. Europ. l. c.

δ. tenella; humilis, folia angustiora sublaevia vel laevissima, theca obsolete striata. *Dicran. alpestre* Wahlenb. Fl. Lapp. p. 309. — *D. gracilescens γ. alpestre* Br. Europ. l. c. — *D. tenellum* Pöch.

Patria. In rupibus umbrosis per regionem montanam et alpinam totius Europae et in America septentrionali. Var. *β.* in humidiusculis alpium. Var. *γ.* ibidem. Var. *δ.* in rupibus siccioribus Hercyniae, Saxoniae ad m. Bastei, Bohemiae, Helvetiae, Tirolis, Scandinaviae et Lapponiae. — *Aug., Sept.*

Flos masc. ad basin perichaetii paucifolius. F perig. lato-ovata subacuminata vel obtusa, intima ene Antheridia elongata, paraphysibus filiformibus paucis m Cellulae alares dicranoideae ut in praecedente.

20d. **D. strumiferum** Ehrh. (Dec. No. 74.); m *cum*; habitus et folia *D. polycarpi*, *sed gracilius et f basi constanter strumosa.*

Dicranum polycarpum β. strumiferum Br. Europ. Fasc. 40. p. 14. t. 2. β. — *D. gibbosum* Brid. Sp. Musc. I. 225. – *cophorus strumifer* Brid. I. p. 395. — *Fissidens strumifer* Musc. Frond. II. p. 88. t. 32. — *Cecalyphum strumiferum* Prodr. p. 52. — *Bryum strumiferum* Dicks. Fasc. III. Pl. Cr.

Patria. In rupibus umbrosis per regionem mon nam et alpinam totius Europae et in America septen nali. — *Aestate.*

Flos masculus *D. polycarpi.* Transitum in hanc sp ciem inter specimina permulta regionum diversissima non, sed thecam semper perfecte strumosam vidimus.

2. Nervo laevi.

a. *Folia integra.*

24. **D. tenuifolium** Hook. et Wils. I. p. 365.

Fl. Antarct. II. p. 407. t. 152. f. 7.

Incertae sedis.

27. **D. imponens** Mont. I. p. 366.

D. involutifolium Sulliv. in Hook. Journ. of bot. 1850. p.

Patria. Terra del Fuego ad fretum Magellanic United States Exploring Expedition of Capit. Ch. Wilk

b. *Folia denticulata.*

28. **D. pungens** Hook. et Wils. I. p. 367.

Fl. Antarct. I. p. 129. t. 59. f. 1.

29. **D. setosum** Hook. et Wils. I. p. 368.

Fl. Antarct. I. p. 129. t. 58.

33. **D. Mühlenbeckii** Br. et Sch. I. p. 370.

Patria. In Bavaria superiore, Teufelsgsais, 5 alt., 1. Sept. 1849. c. fruct. maturis; in alpibus Algo

Bavariae, Wengenkopf, elev. 6300 pedum, 14. Julio c. fruct. junioribus: Sendtner. In Bosnia, ut ex litteris elucet, Sendtner quoque legit.

Incertae sedis.

34 b. **D. Menziesii** Tayl. (Phytologist I. p. 1093.); caulis ascendens semiuncialis densifolius breviter fastigiatim divisus; folia caulina suberecta conferta secunda, subrigida, flavescentia, e basi angustissime lanceolatâ in subulam longissimam setaceam flexuosam v. strictiusculam producta, nervo crasso, subulam totam occupante, superne canaliculato, marginibus basi inflexis; perich. vaginantia breviora, basi dilatata; theca in ped. brevi vix tortili suberecta cylindraceo-elliptica, aperta cylindraceo-oblonga, angustiuscula, apice curvata, siccitate ore contracta, demum obscure striata, basi substrumosa, operc. thecam aequante, longe oblique subulato; dentes perist. suberecti incurvi rubri. †.

Hook. et Wils. cum ic. in Fl. Antarct. I. p. 128. t. 53.

Patria. Nova Seelandia: Menzies; Insula Norfolk: Allan Cunningham; insulae Aucklandi, ad truncos arborum rarius et sterile: J. D. Hooker.

Ex obs. Wilsoni a *D. fasciato* differt: foliis longioribus, magis setaceis, nervo valido percursis, theca solitaria oblonga.

Sectio III. **Orthodicranum** C. Müll. I. p. 371. — Theca erecta cylindrica aequalis.

a. *Folia falcata.*

α. Inflorescentia monoica.

35. **D. fulvellum** Sm. I. p. 371.

Bryum fulvellum Dicks. Crypt. Fasc. 4. t. 11. f. 1!

Patria. Pyrenaei centrales, in rupibus subhumidis, Esquierry, Crabioules, Lac Lehou: Spruce.

Specimina Pyrenaica fide Sprucei folia *D. fulvelli* et thecam *D. hyberborei* striatam habent; spec. Britannica *D. fulvelli* ex ejusdem animadv. theca striata praedita sunt, quare auctor *D. hyperboreum* ad *D. fulvellum* re-

ner; in alpib. Noricis: W. P. Sch.; in
in abieginis nigris vallis Jéret, in Pyren.
fraalpina montis Crabioules, saxa gr
Spruce, in alt. 6000′ legit.

b. *Folia patentia.*

43b. **D. enerve** Theden. (in Hartm. Sk
Ed. V. p. 393.); *dioicum; D. stricto* sim
jus robustius, dense cespitosum; folia
cata, e basi oblonga concava in subul
fere tubulosam integerrimam producta,
tam fere paginam occupante, colore ex
theca oblonga vel cylindrica recta vel s
culi rostro longissimo, annulo simplici;
dentes *majores*, densius articulati et
sporae *majores*, inaequales virides. †.

D. albicans Br. Europ. Fasc. 43. tab. suppl.
num Kolenati in sched. ad Schimper.

Patria. In Helvetiae alpibus, ubi
sterile legit W. P. Sch.; in Caucasi mo
Kolenati fertile detexit; in alpibus Ber
bus perfectis leg. Bamberger, pharmac
dalia Scandinaviae, Skarffjellet: Thede
tembri.

46. **D. aciphyllum** Hook. et Wils. I.
Fl. Antarct. II. p. 405. t. 52. f. 3.

46b. D. rhabdocarpum Schlieb. (M.

attenuata, omnia nervo infra apicem dentatum evanido dorso apice scabro instructa, laxe areolata; perich. vaginantia; theca erecta ovali-cylindrica regularis, sicca 5—8 *costata*, exannulata, operculo oblique longirostro; perist. d. longi ad medium bifidi. †.

Patria. New-Mexico, Santa Fé: Fendler.

Habitu *D. scoparii* et ex auctore *D. Bonjeani* proximum, sed thecae forma longe recedens.

47 b. **D. speirophyllum** Mont. (Voy. de la Bonite. Crypt. p. 275.); caulis luteo-fuscescens, longissimus, parce ramosus; folia *remota undique patentissima, multo breviora*, e basi semiamplexicauli brevissima reflexa, ad alas cellulis alaribus multis planis rufescentibus laxis praeditâ latiuscule convolutaceo-lanceolata et spiraliter pluries torta, *superne argute serrulata*, nervo *angustissimo subobsoleto apice saepius serrulato* ante apicem evanido, cellulis ubique robustis maxime inaequalibus pachydermibus incrassatis interruptis longiuscule prosenchymaticis laevibus.

Patria. Sandwich insulae: Gaudichaud.

A *D. specioso* proximo caracteribus laudatis distinctum, sterile tantum observatum.

48 b. **D. brachypelma** C. Müll.; *dioicum; D. Blumii* proximum, sed parum robustius, folia densius imbricata, *horride patentia*, apice caulis in comam *indistinctam brevem* subsecundam congesta, *robustiora latiora*, late elongate lanceolato-subulata, subcymbiformia, *nunquam convoluta, vix intorta, superne margine et dorso nervi grosse et dense serrata*, ubique e cellulis elongatis *laxe prosenchymaticis* interruptis, *flavide pachydermibus* scariosis et alaribus permultis *laxius et longius hexagonis, fuscidulis et mox pellucidis, nunquam intense fuscis*, reticulata, nervo tenui excurrente; perich. e basi vaginante longius subulata, ad subulam minus serrata; theca in ped. perbrevi innovando laterali erecta solitaria breviuscula cylindrico-oblonga laevis fusca; perist. d. longi ad medium usque fissi purpurei. Caetera desunt.

Patria. Java: Blume. Hb. Al. Braun.

Sectio IV. **Campylopus** Brid. I. p. 383. — Folia cymbi-concava, nervo latissimo planato saepius lamelloso pertheca pro more pedunculo descendente arcuato hygrometrico et calyptra plerumque basi fimbriata obtecta.

1. Folia depilia.

B. *Elata.*

1. Caulis inferus foliis appressis teres.

61. D. Grateloupii C. Müll. I. p. 387.

Patria. An Mauritius? an Guadeloupe? quae Spruce, qui plantae habitum magis exoticum recu tellexit et speciem in Pyrenaeis nusquam vidit.

2. Caulis foliis ubique patulis heteromorphis.

a. *Folia heteromalla.*

β. Imbricata.

†. *Patula.*

69 b. **D. savannarum** C. Müll.; *dioicum;* cespites *maxime latissimi procumbentes, e brunnescente* tes *bicolores,* ob caules intertextos crassos parce dichotomos hic illic genuflexos *apice scoparioides* ad apicem usque tomentosos et folia siccitate ride imbricata *rigida habitu firmo horride scoparia* caulina apicem versus dense imbricata, madore patula subreflexa, *multo breviora,* vix falcata, lanc subulata, superne et *apice hyalino* margine et dors rulata, nervo latissimo laxe reticulato fere $^3/_4$ foli pante et cellulis alaribus robustis laxis permultis vix ventricosis praedita, e cellulis rhombeo-ell *basi grosse rectangularibus,* incrassatis areolata.

Patria. Surinam, in savannis arenosis planitici Mariepaston ad flum. Saramaccam superiorem, inter ticeta: Kegel sterile legit.

A *D. concolori* proximo caracteribus laudatis distinguitur. Pulcherrima species.

††. *Stricta.*

70 b. **D. Oerstedianum** C. Müll.; dioicum; *densissime compacti, inferne rufescentes superne*

lutescentes splendentes, rigidissimi, laxe cohaerentes, vix tomentosi, subhumiles; caulis *gracilis* fragilis flexuosus, ramis appressis dichotome divisus, bicolor, *indistincte angulatus, apice tenui subincurvo acuto;* folia caulina densissime appressa strictissima, anguste canaliculate lanceolato-subulata brevia, apice *truncatulo dentibus nonnullis distinctis serrulato*, nervo latissimo subulam totam superne convolutaceam occupante, cellulis alaribus supra basin fibroso-decurrentem tantum marginalibus teneris laxis pellucidis.

Patria. America centralis, Costa Rica, in regione alpina Vulc. Irasu, alt. 11,000 pedum: A. S. Oersted mens. Febr. et Apr. 1848 sterile legit.

Notis cursive impressis species facillime cognoscenda pulcherrima, *D. bicolori* proxima.

70c. **D. flagellaceum** C. Müll.; humile dense compactum strictum gracile, ob flagella multa gracilia filiformia tenerrima fragilia stricta habitum setosum sistens, sericeum; folia caulina laxe imbricata, siccitate et madore appressa, brevia, lanceolata, cymbiformi-concava, summo apice parce denticulato terminata, strictissima, margine erecto, nervo latissimo planissimo laevissimo paginam folii superiorem totam occupante, cellulis parvis subquadratis mollibus chlorophyllosis, alaribus multis laxis planis fuscis. Caetera desunt.

Patria. Mexico, prov. Mechoacan, Cerro San Andres: 1849. m. Martii inter *Symblephar. Chrismari* legit v. Chrismar.

A *D. flagellari* primo visu cespitibus compactis nervoque Campylopodis lato, a Campylopodibus omnibus flagellis descriptis differt.

70d. **D. brachyphyllum** Mitten (in Lond. Journ. of bot. 1851. p. 52!); cespitosum gracile strictum lutescens, inferne fusco-tomentosum, innovationibus julaceis; folia caulina siccitate arcte appressa remota lanceolato-acuminata, summo apice parce denticulata, basi cellulis alaribus valde conspicuis; comalia densiora; perich. vaginantia su-

perne serrulata; thecae solitariae vel plures ex eodem perichaetio in ped. cygneis obovatae gibbosae, siccitate curvulae, operc. conico subulato rubro obliquo, calyptra fimbriata; perist. *D. flexuosi.* †.

Campylopus brachyphyllus Wils. in sched. ad Mitten.

Patria. Prope Quito: W. Jameson.

Ex obs. auctoris *D. Funkii* simile, sed theca magis curvula et illi *Angströmiae heteromallae* similior.

71. **D. Funkii** C. Müll. I. p. 393.

Campylopus Arduennae Libert. in Pl. Exs. Crypt. Arduenn., a domina Libert coll.

73 b. **D. capitiflorum** Mont. (in litteris!); dense cespitosum, *usque fere ad apicem tomento fusco praeditum, elatiusculum lutescens* rigidum, *ex apice fertili innovans*; folia caulina erecto-imbricata, ad apicem *fertilem patulo-comosa*, *substricta*, *longiuscule* lanceolato-acuminata cymbiformi-concava, marginibus *erectis nec convolutaceis apice serrulatis, ob dentes summo apice haud acuta,* nervo lato *dimidiam partem folii tantum occupante, dorso brevissime scabro-lamelloso* excurrente percursa, ubique e cellulis *lutescentibus* parvis incrassatis basi quadratis laxioribus et alaribus *in ventrem distinctum congestis laxissimis fuscis* reticulata; perich. e basi *longissime vaginante* convolutacea laxiuscule pellucide et elongate reticulata longissime setacea caulinis simillima *latinervia;* thecae in ped. breviusculis *valde arcuatis descendentes plures distincte terminales, gibboso-ovales* parvulae, *siccitate curvatae,* sulcatae, microstomae, ad latus basilare unicum parum rugulosae, *lutescentes,* operc. conico subulato obliquo rubro, calyptra straminea magna, longissime apiculata, basi parce longiuscule hyaline fimbriata, glabra; perist. d. intense rubri, breviusculi, *dense conniventes, ad medium usque* tenuiter bifidi.

Patria. Insula Bourbonis, unde am. Montagne benevole nobis tradidit.

A *D. nivali*, *Pilopogo* haud dissimili, ob notas laudatas toto coelo distans et *D. Funkii* affinius.

b. *Folia homomalla.*

α. Falcata.

78. **D. reduncum** Hsch. et R. I. p. 396.

Patria. Java, in prov. Buitenzorg, alt. 800 hexap.: Bélanger.

82b. **D. Zollingerianum** C. Müll.; dioicum; late et compacte pulvinatum altiusculum firmum lutescens; caulis ascendens *altiusculus* pollicaris, gracilis, inferne simplex, foliis appressis veluti nudus, superne innovationibus *subreduncis sursum falcatis* brevibus pluribus fertilibus divisus; folia caulina praecipue ad innovationis apicem *parum* falcata, e longe fibroso-decurrente basi anguste oblonga et inde lanceolato-subulata *subfalcata* breviuscula acutissima, subintegerrima, laevia, nervo lato deplanato excurrente, cellulis laxiuscule quadratis, superne parvis densis, alaribus marginalibus planis teneris pellucidis; perich. e basi longe vaginante elongate laxe reticulata pellucida virente tenerâ in *aristam longissimam flexuosam* subintegerrimam producta, intimum longe convolutum; theca in ped. *breviusculo valde flexuoso* firmo laevi erecta, sed ob pedunculi deflexionem nutans, parvula, oblonga aequalis, laeviter *sulcata, collo brevi laevi instructa,* late annulata, operc. conico, oblique subulato; perist. d. angusti purpurei trabeculati, in crura duo pallida tenuissima rugulosa ad medium usque fisssi; calyptra basi integra vix fissa.

Patria. Insula Sumbawa archipel. Indici, ad rupes, altitud. 4800 pedum: Zollinger sub No. 1184. *Z.*

Notis illustratis a *D. flexifolio* differt; a *D. flexuoso* calyptra integra jam distat; *D. comosum* primo visu innovationibus julaceo-cuspidatis recedit; *D. reduncum* foliis capillaribus serratis, perichaetialibus basi purpurascentibus thecisque subgibbosis jam facillime cognoscitur. — Pl. mascula *D. flexifolii.*

82c. **D. Helenicum** C. Müll.; *dioicum;* late cespitosum *laxe cohaerens* altiusculum firmum *sordide* lutescens; caulis erectus ultrapollicaris, gracilis, inferne simplex

appressifolius filiformis, medio in ramum *sterilem elon-tum apice subincurvum filiformem cuspidatum subjulac-et ramum fertilem breviorem vel aequilongum inferne liformem apice parum comosum monocarpum divisus;* lia caulina imbricata, hic illic siccitate paulisper et dore vix falcata *D. Zollingeriani, sed superne obsolete ticulata et summo apice ob dentes duos diviso,* ce parvis incrassatis rhombeo-quadratis, basi longior rectangularibus, plus minus incrassatis, *alaribus in trem distinctissimum hemisphaericum deciduum fr congestis, intense fuscis* laxis; perich. *D. Zollingeriani,* basi densius reticulata, stricta, summo apice bident theca in ped. brevi rubente tortili erecto, madore desc dente demissa, parva, gibbose ovalis, annulata, lev sulcata, operc. conico oblique subulato, calyptra *basi breviter fimbriata.*

Patria. St. Helena. Kunze donavit.

A *D. Zollingeriano* affini caract. descriptis facile cernibile.

β. Uncinata.

89. **D. denudatum** Brid. I. p. 403. — Perist. ad basin usque fissi.

89b. **D. Mitteni** C. Müll.; elatum laxe cespitosu chotome ramosum, apice falcatum, lutescens inferne cescens; folia caulina secunda falcata, e basi lata longissime acuminata capillacea, concava, laevia, cellulis alaribus conspicuis; perich. basi convoluta; in ped. flexuoso erecto oblonga laevis, operc. conico bulato, calyptra basi fimbriata. †.

D. erectum Mitten in Lond. Journ. of bot. 1851. p. 53. jam usum mutandum fuit. — *Thysanomitrium macrophyllum* in schedulis ad Mitten.

Patria. Prope Quito: W. Jameson.

Ex obs. *Mitteni D. uncinato* et *denudato* affine, muscus late cespitosus, habitu *D. majus* spectans.

91. **D. stenocarpus** C. Müll. pro *D. stenopus* leg

2. Folia pilifera.

b. *Pilo stricto.*

105b. **D. laevigatum** C. Müll.; *dioicum;* laxe cespitosum; caulis ascendens, innovationibus incurvis; folia erecto-patentia, rigida, e lineali-lanceolato subulata, pilo brevi vel subnullo, serrulato vel sublaevi, concava, apicem versus subfistulosa, nervo dilatato tenui, *dorso sublaevi*, inferiora atrata, superiora novella luteo-viridia; theca oblongo-ovalis tenuiter membranacea *laevis, collo calloso;* perist. *D. Liebmanni*, sed angustius. †.

Campylopus Richardi Schimp. in litteris. — *C. laevigatus* Schimp. olim.

Patria. Mexico, Tropiche, in vicinitate montis Orizabae: Liebmann.

Ob notas laudatas paucas jam a *D. Richardi* vero differre nobis videtur.

105c. **D. lamellicosta** C. Müll.; foliorum forma et nervo lamelloso, caule radiculoso et peristomio *D. laevigato* proximum, diversum autem foliis magis imbricatis brevioribus, pilo breviore sublaevi et colore inferiorum rufescente haud nigricante, theca breviore. †.

Campylopus lamellicosta Schimp. in litteris!

Patria. Mexico, La Foga: Liebmann Augusto fruct. deoperculatis legit.

105d. **D. Liebmanni** C. Müll.; dioicum, laxe cespitosum; caulis uncialis et longior, e basi decumbente erectus, radiculosus; folia e basi imbricante erecta, apice patula, in ramorum summitate comam penicillatam efformantia, rigida, lineali-lanceolata, pilifera, concava, integra, pilo argute exasperato; perich. ad baseos margines membranacea; omnia nervo dorso lamellato et $^3/_4$ folii occupante percursa; theca in ped. e stramineo rubello superne papilloso demissa, ovalis laevis, tenuiter membranacea, operc. brevirostro, margine eroso, annulo duplici; perist. d. angusti. †.

Campylopus Liebmanni Schimp. in litteris!

Patria. Mexico, Chinantle: Liebmann aestate legit.

D. introflexo et habitu, magnitudine et colore affine, primo visu ex Schimper capitulis floriferis minus incrassatis et theca omnino laevi tenuiter membranacea, evacuata pallide straminea distinguendum.

105e. **D. lutescens** C. Müll.; *dioicum;* caulis simplex erectus rigidus, innovationibus strictis, capitulis multifloris subglobosis terminatis; folia stricta incumbentia, ad capitulorum basin recurva, elongato-lanceolata, canaliculata, comalia latiora tantum piligera, nervo $^3/_4$ folii occupante, dorso dense lamellato; calyptra valde fimbriata. †.

Campylopus lutescens Schimp. in litteris!

Patria. Mexico, monte Orizaba: Liebmann sterile legit.

D. introflexo ex obs. *Schimperi* affine.

105f. **D. proliferum** C. Müll.; *dioicum;* cespites *elongati* densi rigidi lutescentes; caulis masculus *elongatus tripollicaris gracilis, ob folia appressa ubique tenuiter julaceus, prolificationibus masculis turgide capituliformibus, madore rosulatis, remotis tribus (terminali inclusa) praeditus,* inferne tomento brevissimo albido v. purpurascente, ad flores masculos in medio caulis positos saepius prolificationibus conformibus elongatis divisus; folia caulina appressa breviuscula, e basi longe fibroso-decurrente anguste cymbiformi-lanceolata, *apice parum emarginata,* pilo brevissimo vel parum longiore dentato hyalino terminata, nervo lato, dorso breviter lamelloso, margine *erecto vel apice parum involutaceo, ubique integerrimo,* cellulis alarum latiuscularum inferne angustissime elongatis, superne incrassatis minutis rotundatis v. ellipticis, alaribus nullis; involucralia latissime oblongo-ovata brevipila, apice plerumque valde emarginata et erosa, magis convolutacea, cellulis alaribus utrinque ad basin planis multis intense fuscis laxis; perigonialia his multo minora depilia obtusiuscula, nervo angusto obsoleto elamelloso, ubique integerrima, haud emarginata.

Patria. Venezuela, colonia Germanica Badensis Tovar, 5600′ alt., 1849 m. Januar. leg. Wagner.

Notis designatis facile discernibile. Antheridia magna pallida; paraphyses multae aureae gracillimae.

106. **D. atro-virens** C. Müll. I. p. 414.

Patria. Zona subalpina, in sylvarum rupibus humidis sterile, Pyren. occid. Monte Goursi, Pyren. centr. Vallon de Castelloubon: Spruce.

Trib. XVI. LEPTOTRICHACEAE.

Folii cellulae basi rhombeae superne rectangulares vel mixtae laeves, alares propriae nullae.

Gen. II. **Campylostelium** Br. et Sch. I. p. 417.

Calyptra mitraeformis. Perist. simplicis dentes 16 in membrana reticulata aequidistantes lanceolati purpurei dicranoideo-bifidi.

1. **C. saxicola** l. c.

Patria. In Pyrenaeis centralibus, locis umbrosis in saxis arenaceis, Labassère, Vallon de Castelloubon: Spruce.

Gen. I. **Brachyodus** Fürnr. I. p. 416.

Calyptra mitraeformis. Perist. simplicis dentes 16 brevissimi, lati, obtusi, irregulariter lacerati, tenerrime membranacei, pallidi, fugacissimi, aequidistantes vel parum confluentes.

Gen. III. **Seligeria** Br. et Sch. I. p. 418.

Calyptra dimidiata. Perist. nullum vel simplex: dentes 16 aequidistantes lanceolati planissimi aurantiaci articulati, linea media exarati igitur plus minus fissiles, vel pertusi.

Sectio I. **Euseligeria** C. Müll. I. p. 418. — Plantae pygmaeae, peristomio planissimo laevi.

5. **S. Doniana** C. Müll. I. p. 420.

Patria. Pyren. centr. in rupibus calcareis occ. pr. Bagnères de Bigorre, in zona montosa: Philippe Spruce. In Scandinavia ex Ångström.

Sectio II. **Leptotrichella** C. Müll. I. p. 421. – Pl. elatiores, perist. d. linea media exarati.

7. **S. Kunzeana** C. Müll. I. p. 421.

Patria. America centr., Costa Rica, Aguacate, 1500′ mens. Novbr. 1847: A. S. Oersted. Forma fol. latioribus firmioribus strictioribus, e cellulis flavissim. magis incrassatis areolata. Inter *Polytrich. tortile* Sw.

11. **S. linearifolia** C. Müll.; dioica, subramosa densiuscule compacte cespitosa; folia erecta multa perang. sta linearia sensim acuminata stricta tenacia integerr. nitidula lutescentia, nervo crasso fusco ante apicem ev. nido, cellulis rhombeo-linearibus laevibus; perich. simp. theca in ped. erecto vel deflexo luteo-rufo brevius. erecta ovata aequalis, ore paulum contracta sulcata h. dia; perist. d. breves remoti lineares erecti, transv. striati, integri, rufescentes. †.

Weisia linearifolia Hsch. in Schw. Suppl. II. II. 2. p. 92.

Patria. Java: Reinwardt.

Pl. mascula brevior, flore globoso; fol. perig. ov. acuminata concava, nervo in medio folii evanido, m. centia basi, apice pallida. Anth. copiosa, paraph. fil. mes limpidae. — A caeteris Seligeriis theca sulcata p. recedit.

Gen. IV. **Garckea** C. Müll. I. p. 424.

Calyptra campanulata. Perist. simplicis dent. 16 lanceolati subperforati Trematodontis.

Gen. V. **Eccremidium** Hook. et Wils. I. p. 4[illegible]

Calyptra minute campanulata. Theca gym. stoma medio dehiscens, cum operculo arcte connata.

Congeneres ad *Garckeae* genus forsan pertinentes.

Gen. VI. **Ångströmia** Br. et Sch. I. p. 426.

Calyptra cucullata. Perist. nullum vel simplex *Dicrani.*

Sectio I. **Euangströmia** C. Müll. I. p. 426. — Plantae julaceae rectisetae.

Sectio II. **Campylopodium** C. Müll. I. p. 429. — Plantae homomallophyllae, pedunculis cygneis.

Sectio III. **Dicranella** C. Müll. I. p. 430. — Plantae simplices, foliis plus minus patulis pedunculisque erectis.

a. *Folia homomalla.*

β. Theca exstrumosa.

11 b. **A. planinervia** C. Müll.; caulis cespitosus subsimplex subuncialis, superne laete viridis, inferne brunnescens; folia parum amplexicaulia imbricata secunda apice falcata, ex lata triangulari basi lineari-subulata *minus setacea* integerrima, nervo latissimo *saepius indistincto;* theca inclinata inaequalis *angustius* ovata, operc. *brevirostro;* perist. d. inaequaliter bifidi. †.

Dicranum planinervium Tayl. Lond. Journ. of bot. 1848. p. 281.

Patria. Monte Pichincha: W. Jameson, 8. Aug. 1847.

Ab *A. subulata* caracteribus laudatis ex animadv. auct. distat.

14 b. **A. Liebmanniana** C. Müll.; *dioica,* humilis subsimplex tener dense foliosa; folia subflexuoso-patentia vel subsecunda, siccitate leniter torta, *mollia,* pallide viridia, inferiora lanceolata, superiora lineali-lanceolata, comalia longiora; perich. his similia; omnia obtusiuscula vel obtusa, apice denticulata, canaliculata, nervo laxo sub apice evanido, cellulis superioribus rectangulis inferioribus rhombeis hyalinis; theca erecta vel obliqua, *collo defluente,* operc. longirostro, annulo *duplici lato revolubili;* perist. d. infra medium bifidi, dense articulati, linea divisurali nulla, sicci incurvi, aurantiaci *liberi* nunquam contorti; sporae majusculae. †.

Dicranoweisia subulata Schimp. in litteris.

Patria. Mexico pr. Mirador: Liebmann.

Ab *A. tenuirostri*, ex auctore simillima, [illegible] signatis differre dicitur.

14c. **A. microdonta** C. Müll.; dioica, altior, [illegible] ramis subfastigiatis fertilibus; folia undique patentia subsecunda, e basi latiore subvaginante lineali-[illegible] canaliculata, nervo excurrente; theca erecta ovi[illegible] chyderma, collo subnullo, operc. longirostro, [illegible] plici fragmentarie secedente; perist. d. breves, ad [illegible] in crura duo subaequalia divisi, fugacissimi. †.

Dicranoweisia microdonta Schimp. in litteris.

Patria. Mexico pr. Mirador, in terra argil[illegible] Liebmann.

14d. **A. compacta** C. Müll.; dioica, dense aggre[illegible] et pulvinato-cespitosa *gracilescens*, inferne venoso-[illegible] bella, superne pallide viridis, radiculis superioribus [illegible] ris pallidis, *minus ramosa, nunquam tomentosa;* fol[illegible] *densae, sed pallidiora, ad caulis apicem subsecunda,* [illegible] *citate flexuosa;* perich. caeteris similia, majora, bas[illegible] mivaginante longiori; theca *A. densae* in ped. stra[illegible] flexuoso semiuncia breviore cernua incurva, pallid[illegible] rantiaca, collo brevi defluente, annulo lato, operc. [illegible] rostellato aurantiaco; perist. *A. densae.* †.

Dicranoweisia compacta Schimp. in litteris.

Patria. Mexico, Sta. Gertruda, Talco: Lieb[illegible] Augusto.

b. *Folia heteromalla.*

a. Squarroso-reflexa.

†. *Elatae.*

18b. **A. pellucida** C. Müll.; laxe cespitosa parce [illegible] chotome ramosa flexuoso-erecta plus minus gracilis [illegible] viridi amoene flavescens, inferne radiculosa ad perich[illegible] tium innovationem longam efficiens; folia laxe imbric[illegible] *erecto-flexuosa squarrosa crassiuscula*, e basi erecta [illegible] longa subvaginante concava longius et amplius arcu[illegible] plus minus reflexe lanceolata, *superne et dorso* nervi [illegible]

nescentis crassi carinati viridis plus minus denticulata, e cellulis minutis quadratis viridissimis *valde papillosis* areolata; perichaetialia latius vaginantia; theca in pedunculo rigido erecto subcorneo flavido breviusculo *inclinata, e collo minuto gibboso-ovata* brevis *cernua* coriacea, exannulata, operculo conico rostrato aurantiaco; perist. dentes lati robusti magni purpurei.

Dicranum pellucidum Hdw. Sp. Musc. p. 142. — Brid. I. p. 439. — Br. Europ. Fasc. 37 — 40. p. 16. t. 4. — *Dicr. aquaticum* Ehrh. Dec. No. 216. — *Bryum pellucidum* L. Sp. Pl. p. 1583. — *Br. aquaticum* Hoffm. Fl. Germ. II. n. 35. — Br. palustre, pellucidum, capsulis et foliis brevibus recurvis. Dill. Musc. p. 364. t. 46. f. 23.

β. fagimontana; humilis, ramis tenuioribus, foliis brevioribus. Br. Europ. l. c.

γ. serrata; foliis crenato-serratis; theca ovali et ovali-oblonga, erecta v. subobliqua, operculo tenuirostro. Br. Europ. l. c. — *Dicr. flavescens* Hook. et Tayl. Musc. Brit. p. 55. t. 17.

Patria. In montosis humidis graminosis totius Europae et in America septentrionali. — *Auctumno et primo vere.*

Pl. mascula femineae similis, flore terminali gemmaceo. Folia perig. e basi ovata concava lineari-lanceolata excurrentinervia. Antheridia elongata breviter stipitata, paraphysibus tenuibus cincta.

18c. **A. Hookeri** C. Müll.; *dioica;* laxe cespitosa, apice dichotome ramosa, ramis brevibus, gracilior, e viridi flavescens, inferne radiculosa; folia laxe imbricata *erecto-patentia* flexuosa, e basi erecta perfecte vaginante lato-concava elongate amplius areolata subito in subulam lanceolatam plus minus reflexam minute reticulatam igitur obscuram, *ubique laevem integerrimam* producta, nervo subexcurrente; perichaetialia multo longiora et longius tenerius vaginata; theca in pedunculo breviusculo rigido erecto rubro *erecta ovata brevis;* perist. *D. pellucidi.*

Dicranum vaginatum Hook. et Wils. in schedulis.

Patria. Insula Eremitae ad Cap. Horn: J. D. Hooker.

inclinata, ovata aequalis, longe subula
lata, calyptra pallide fusca; perist. d
rubri, marginibus hispidis. †.

Dicranum vaginatum Hook. Musc. Exot.
465. — *D. Jamesoni* Tayl. in Lond. Journ. of
obs. Mitteni (l. c. 1851. p. 52.) huc pertinet.

Patria. In convallibus Andium G
Almaguar et Pasto, alt. 1200—1500 he
et Bonpland. Prope Quito legit W. J

18e. **A. clathrata** C. Müll.; caulis
sus; folia dissita, e basi quadrata vagi
tula, apice denticulata obtusa, solidinerv
tortili erecta turbinata, operc. longirostr
3-fidi clathrati, basi perforati. †.

Dicranum clathratum Hook. et Wils. in
1844. p. 542.

Patria. Nova Seelandia, in catarac
Kidi: J. D. Hooker.

Ab *A. vaginata* proxima habitu g
basi latiori subito contractis, apice l
theca sicca sub ore non coarctata, basi
perist. differente, operc. apice longiori g

18f. **A. campylophylla** C. Müll.;

physata, operc. rostrato thecam fere aequante; perist. dentes rubri inaequaliter bifidi. †.

Dicranum campylophyllum Tayl. Lond. Journ. of bot. 1848. p. 281.

Patria. Monte Pichincha: W. Jameson, 8. Aug. 1847.

A. vaginatae auctor comparavit. Huc optime pertinere videtur.

18g. **A. virens** C. Müll.; dense cespitosa sed laxius cohaerens, elongata erecta pluries dichotoma radiculosa; folia caulina erecto-patentia flexuosa, sicca plus minus crispata, e basi *lata longe amplexante* longius tenerius et pellucidius areolata margine valde revoluta sensim lanceolata subcomplicato-carinata, *pachydermia,* nervo crasso *in cuspidem plus minus longam et acutam producta, laevia,* obsolete denticulata, superne minute quadrate areolata; superiora et perichaetialia *e basi erecta plus minus vaginante reflexiuscula, intima perfecte longe vaginantia superne subito fere longe subulata* carinata; theca in pedunculo breviusculo flavido v. rubro cernua, *arcuata subgibboso-ovata, basi compresse strumosa, brevissima ochracea,* operculo conico rostrato obliquo *omnino aurantiaco;* perist. dentes lati robustissimi regulares ad medium fissi *intense purpurei laeves; monoica.*

Dicranum virens Hdw. Musc. Frond. III. p. 77. t. 32. — Bryol. Europ. Fasc. 37—40. p. 15. t. 3. a. — *Oncophorus virens* Brid. I. p. 399. — *Bryum virens* Sw. Nov. Act. Ups. IV. p. 241.

β. compacta; dense cespitosa, humilior gracilior; folia breviora e basi ovatā lanceolata, integerrima v. apice obsolete dentata, inferiora atrata; theca in pedunculo breviore gibba. Br. Europ. l. c. p. 15. — *Dicran. Homanni* Boeck in Hartman. Skand. Fl. ed. 4. p. 384.

Patria. In umbrosis humidis ad saxa et ligna putrida, vel in apricis aquosis ad fontium et rivulorum margines per totum jugum alpinum Europae. Var. *β.* secus rivulos. — *Aestate.*

Flos masc. primum terminalis, dein in foliorum comalium axillis minutus paucifolius, foliis obovato-acumi-

margine magis involuta haud revoluta, lata, laevia; perichaetialia *latius superne ginantia*; theca brevior.

Dicranum virens Wahlenb. Fl. Lapp. p. 33 *cophorus Wahlenbergii* Brid. I. p. 400. e desc *Dicr. virens β. Wahlenbergii* Br. Europ. Fasc. 3. b. — *D. Richardsoni* Hook. in Drumm. Musc. *D. microcarpum* Hook. in Drumm. Musc. Amer. nor, theca minuta, gracilior, in locis sterilibus collecta. — *D. compactum* Fk. in sched.

Patria. In turfosis Lapponiae, Labr septentrionalis, e Canada usque ad Rocky in Kamtschatka, unde ex Hb. Wahlenb sio lectam habemus. Ex alpibus (Tritalp

Notis cursive impressis ab *A. virente* speciem habemus. Var. *γ. serrata* foliis Br. Europ. verisimiliter quoque huc perti

††. *Humiles.*

23. A. cylindrica C. Müll. I. p. 441.

Patria. Pyrenaei centr., reg. monto naceis fragilibus montis Superbagnères:

Gen. VII. **Leptótrichum** Hmp

Coscinodon pullulans Brid. I. p. 371. — *Grimmia pullulans* Spreng. Pl. min. cogn. Pug. III. p. 94. — Varietas densius areolata. — *Weisia capillacea* Brid. I. p. 359.

3. L. subulatum Hmp. I. p. 448.

Patria. Pyren. occid., regione infima, ad aggeres arenosos umbrosos circa St. Sever copiose: Spruce, W. P. Sch. Sept. 1847.

4b. L. nivale C. Müll.; *dioicum;* gregarie cespitosum pusillum subsimplicissimum virens, lutescens vel inferne nigrescens, julaceum; folia caulina dense appressa stricta, oblongo-lanceolata brevia, nervo profunde carinato fuscescente excurrente, margine integerrimo superne suberecto, cellulis ubique minutis pachydermibus pellucidis quadratis; perich. majora pallide lutescentia, e basi subvaginante elongate laxe reticulata, inferne flavida superne pellucida in subulam brevem obtusiusculam attenuata, integerrima, carinata; theca in ped. brevi carnoso rubente erecta ovalis minuta, late annulata, operc. conico brevi, perist. d. breves angusti ad basin in crura duo tenera rubra fissi sublaeves solitarii.

Trichostomum glaciale Schimp. in schedulis. — *Tr. pusillum* ejusd. olim.

Patria. Alpes Helvetiae „im Gletschersande des unteren Aar-Gletschers": W. P. Sch. Aug. 1848.

Flos masc. terminalis capituliformis; fol. perig. e basi late ovata concava convolutacea fuscâ sensim in subulam brevem acutiusculam producta, integerrima, inferne pellucide laxe reticulata tenuinervia; antheridia magna clavata, paraph. aureis mixta. — *Angströmiae longipedi* habitu maxime simile et pulcherrima species. A *L. subulato* caule julaceo, peristomii fabrica atque operculo jam refugit.

Non satis notum.

4c. L. glaciale C. Müll.; caulis ramosus humilis robustiusculus fastigiatim cespitosus, ramis erectis densis firmis; folia dense conferta erecto-patentia, apice incurva, fragilia, e fusco luride viridia, e basi caviusculâ

ovato-lanceolata, nervo crasso longe excurrente pungentia, margine erecto, cellulis minimis subrotundis inferioribus majoribus pellucidis. †.

Didymodon? glacialis Hook. et Wils. Fl. Antarct. II. p. 408. t. 152. f. 6.

Patria. Insula Cockburn Island nuncupata antarctica, lat. 64° S. 57° W.: J. D. Hooker.

c. *Folia secunda.*

α. Elata.

5b. **L. crinale** Mitten (Lond. Journ. of bot. 1851. p. 531); caulis elongatus flexuosus laxe cespitosus, ramis erectis, pallide viridibus; folia laxe imbricata erecto-patentia, ex oblonga vaginante basi elongate setacea, parum secunda, summo apice dentata, nervo percurrente; theca parum inclinata subaequalis cylindraceo-ovata, annulata, operc. elongate conico; perist. d. filiformes, basi geminati. †.

Didymodon crinale Tayl. Lond. Journ. of bot. 1848. p. 280.

Patria. Monte Pichincha: W. Jameson, 8. Aug. 1847.

A *L. flexicauli* ex auct. ratione differt: foliis e basi longiore et oblongo-vaginante longius setaceis apice distinctius dentatis, caule superne ramosiore et fol. perig. basi vaginante oblonga apice angulatis.

β. Pusilla.

12. **L. homomallum** Hmp. I. p. 453.

Gymnostomum homomallum Brid. I. p. 757, e regione Dax Aquitaniae. Theca e spec. auctoris peristomata!

14. **L. dicranoides** C. Müll.; dioicum, gregarium semiunciale simplex dense foliosum; folia breviora, pallide viridia, e basi imbricata latiuscula subito attenuata et breviter lanceolata, apice incurva, subexcurrentinervia; theca in ped. semiunciali pallide rubello obliqua subincurva, ovali-oblonga, exannulata brevicolla, pallide ferruginea, operc. subulato obliquo thecam aequante vel superante; perist. d. subulati, valde hygroscopici, 32 sub-

aequales, solidi, filiformes, quam maxime tuberculosi, intense rufi, siccitate apice subcontorti parum hygroscopici. †.

Trichostomum dicranoides Schimp. in litteris.

Patria. Mexico, ad Mirador in solo argilloso: Liebmann.

Angströmiae variae ex auct. simile.

Gen. VIII. **Lophiodon** Hook. et Wils. I. p. 455.

Calyptra cucullata. Perist. simpl. dentes 16 pyramidati, per paria approximati.

Ad *Seligeriam* melius forsan revocetur.

1. **L. strictus** eor. l. c.

Fl. Antarct. I. p. 130. t. 59.

Gen. IX. **Trematodon** Rich. I. p. 456.

Calyptra dimidiata. Perist. nullum vel simplex; dentes 16 basi connati, strigillosi fissiles veluti perforati.

Gen. X. **Symblépharis** Mont. I. p. 460.

Calyptra dimidiata. Perist. simplicis d. 16 per paria approximati, infra orificium oriundi, ad basin infimam subconnati, lanceolati, usque ad basin trabeculatam bifidi, cruribus cohaerentibus.

2. **S. Oerstediana** C. Müll.; *dioica;* cespites latissimi, laxe cohaerentes, plus minus elati, inferne sordide ferruginei, superne sordide lutescentes, rigidi; caulis plus minus elongatus, parce breviter ramosus; folia caulina densissime conferta, maxime tortuosa, *multo majora,* e basi elongata vaginata angusta elongate laxisssime reticulata *superne maxime dilatatâ* in subulam reflexam elongatam, *inferne planam latissimam superne autem sensim* angustatam canaliculatam, nervo excurrente dorso apicis denticulato percursam, ubique e cellulis parvis incrassatis plus minus quadratis areolatam, apice *valde serrulatam*

producta, laevia; perich. caulinis simillima, haud long sed *basi longissima valde convoluta et pedunculum cingente*, laxius reticulatâ; theca in ped. breviusculo litario erecta, *elongate cylindrica ampliuscula* micros *nitida* fuscescens, basi substrumosa, exannulata, vando lateralis, operc. conico oblique rostrato; perist. *longissimi, robusti, intense purpurei, remote dist trabeculati*, sedecim bicrures geminati, cruribus haud *haerentibus*, uno alterove crassiore.

Patria. America centralis, Costa Rica, reg. mon inter 5000—8000′ elevationis, mens. Febr. et Apr. legit A. S. Oersted.

A *S. helicophylla* notis cursive impressis differt.

3. **S. Chrismari** C. Müll.; *S. helicophyllae* simil sed folia angustiora breviora e cellulis *mollibus* chl *phyllosis, nunquam incrassatis*, areolata; thecae a stissime cylindricae elongatae erectae *valde falcato cuatae*, longe subulate subrecte operculatae, solitari rarius aggregatae, terminales vel innovando late longiuscule pedunculata, basi subinaequales vix st sae; perist. d. angustissimi, cruribus vix cohaerenti

Patria. Mexico, prov. Mechoacan, Cerro San dres: v. Chrismar 1849 m. Martii in ligno putrido mam humilem, prope Jalapam m. Martii formam robustiorem legit.

Theca illi *Mielichhoferiae campylothecae* similis.

II. *Folia papillosa.*

Trib. XVII. BARTRAMIOIDEAE I. p. 463.

Folii cellulae parenchymaticae quadratae, more ad parietes transversales papillis nodulosae scabrae, nunquam opacae.

Subtrib. I. MEESEACEAE I. p. 464.

Habitus funarioideus; theca erecta elongata longicolla pyriformis, stomatiis praedita; areolatio folii plerumque laxa laevis.

Gen. I. **Meesea** Hdw.

Calyptra dimidiata. Perist. dupl. d. ext. 16 brevissimi lati obtusi, int. 16 in membrana brevi, longitudinaliter exarati vel fissi et pertusi cartilaginei, ciliis interjectis.

5. **M. vagans** C. Müll. I. p. 467.

Bryum vagans Hook. et Wils. Fl. Antarct. II. p. 414. t. 154. f. 1.

Patria. In turfosis vulgaris.

Gen. II. **Paludella** Ehrh. I. p. 467.

Calyptra dimidiata. Perist. duplex Pohliae.

Subtrib. II. BARTRAMIACEAE I. p. 469.

Habitus proprius; folia tuberculose papillosa, plerumque dense areolata; theca pro more globosa brevicolla plagiostoma, stomatiis destituta.

Gen. III. **Conóstomum** Sw. I. p. 469.

Calyptra dimidiata. Perist. simpl. d. 16 lanceolati, sicci et madefacti erecti, dense et nodoso-articulati, linea media exarati, apice per paria coaliti et in conum clausum obliquum connati, basi spatio aequali infra orificium oriundi.

1. **C. boreale** Sw. I. p. 470.

Patria. Pyrenaei, Barranco de San Juan, inter „dem Mulahacen et Velata-Sierra Nevada, 9000′ W. P. Schsterile legit.

3. **C. Magellanicum** Sulliv. (in Hook. Journ. of bot 1850. p. 316.); *monoicum*, dense cespitosum; caulis gra-

cilis innovando ramosus, inferne tomentosus; folia sicca et madefacta arctissime incurvo-appressa, quinquefaria *oblongo-ovata obtusa* carinato-concava *integerrima laevia*, nervo lato *ante apicem evanido*, cellulis *laxe* reticulatis; perich. longius acuminata, excurrentinervia. †.

Patria. Ad fretum Magellanicum in Tierra del Fuego: United States Exploring Expedition under the command of Captain Charles Wilkes.

Flores terminales; masculus disciformis, antheridiis numerosissimis, paraph. clavatis; femineus capituliformis, archegoniis gracilibus, paraph. filiformibus. — A *C. Australi* notis illustratis distinctum.

Gen. IV. **Bartramia** Hdw. I. p. 471.

Calyptra dimidiata. Perist. nullum, simplex vel duplex; externi d. 16 lanceolati trabeculati, linea media exarati, erecti, sicci incurvi, aurantiaci; interni d. tenuiter membranacei lanceolati 16, in membrana 16-plicata positi, secedentes et dein divergentes, ciliis plus minus perfectis interjectis.

Sectio I. **Philonotis** Brid. — Caulis apice fastigiatim veluti verticillatim ramosus; folia erecta lanceolata mollia carinata pellucide areolata.

B. *Graciliores.*

a. *Theca gymnostoma.*

15. B. pusilla C. Müll. I. p. 480.

B. pusilla Sulliv. in Hook. Journ. of bot. 1850. p. 316. huc certe pertinere videtur notis accuratius designatis sequentibus: dioica, caulis e basi tomentosa prostrata erectus rigidiusculus dendroideo-ramosus, ramis erecto-patentibus strictiusculis, folia caulina ovato-lanceolata appresso-erecta, ramea anguste lanceolata patentia, omnia excurrentinervia cuspidata, margine celluloso-denticulata reflexiuscula, utraque pagina valde papillosa, opaca viridi-glaucescentia minute quadrato-areolata; flos masculus terminalis disciformis. fol. perig. obtusiusculis evanidinervibus, antheridiis numerosissimis elongatis, paraphys. longioribus clavatis; fructus auctori ignotus.

Patria. Ad fretum Magellanicum in Tierra del Fuego: United States Exploring Expedition, under the command of Cap. Ch. Wilkes.

b. *Theca peristomata.*

17. **B. sphaericarpa** Schw. I. p. 481.

Patria. America centralis, Costa Rica, inter 5000—8000′ elev., m. Febr. et Apr. 1847: A. S. Oersted. Venezuela, Galipan ad aquaductum, alt. 6000 pedum: Wagner m. Aug. 1849. copiose legit.

Sectio II. **Plicatella** C. Müll. — Caulis vage et apice fasciculatim ramosus; folia e basi erecta reflexa, anguste elongate basi utrinque ad marginem amplius areolata, longitudinaliter plicata.

a. *Brevipedunculatae.*

26b. **B. subarcuata** C. Müll.; dioica, *B. arcuatae* simillima, sed folia basi haud vaginantia, ovato-lanceolata, minus distincte plicata, denticulis marginalibus minoribus, dorso minutius tuberculatis; theca in ped. subarcuato estriata, tenuiter membranacea, siccitate rugosa, pallide ferruginea. †.

Breutelia subarcuata Schimp. in litteris.

Patria. Mexico, Pico de Orizaba, alt. 11000 ped.: Liebmann.

Obscuriores.

1. **Hypnum consimile** Hook. et Wils. I. p. 492.

Fl. Antarct. I. p. 137. t. 60!

Sectio III. **Vaginella** C. Müll. — Caulis dichotome divisus; folia e basi vaginata laxe reticulata erecta subito reflexa minute reticulata.

a. *Longipedunculatae.*

34b. **B. Schimperi** C. Müll.; hermaphrodita, ramis haud tomentosis; folia conferta, patentia et erecto-patentia, siccitate incumbentia subtortilia, e basi semivaginante lineali-subulata, stricta, planiuscula, margine argute serrata, nervo valido excurrente mucronata, utraque pagina tuberculosa; theca subcernua subglobosa striata, sicca costata, operc. mammillari; perist. duplicis d. ext.

integri vel medio hiantes, apice fissi, int. rudimentarii, membrana angusta emarginata pallide lutea. †.

B. brevifolia Schimp. in litteris.

Patria. Mexico, Pico de Orizaba, alt. 12000': Liebmann.

Locum ex auctore tenet inter *B. strictam* et *ithyphyllam*. A congeneribus omnibus perist. interno imperfecto jam refugit.

36b. **B. Costaricensis** C. Müll.; *hermaphrodita; B. patenti* simillima, sed folia *multo breviora, sicca parum crispata*, e basi laxe elongato reticulata pellucida tenera *angusta* longa apice rotundatâ subito in subulam canaliculatam *maxime opacam, margine revoluto et dorso maxime scaberrimam*, serrulatam producta, nervo carinato excurrente subulam superiorem totam percurrente; perich. magis erecta; theca in ped. longiusculo *innovationes autem vix superante laterali* inclinata turgide globosa *valde plicato-corrugata, minutius reticulata.*

Patria. America centralis, Costa Rica, in reg. montosa inter 5000—8000 ped. elevationis, inter *Dicrana* ab A. S. Oersted 1848 mens. Febr. lecta specimen legimus.

36c. **B. flavicans** Mitten (Lond. Journ. of bot. 1851. p. 55!); hermaphrodita, laxe cespitosa, ramosa, ramis strictis dichotomis viridibus et flavescentibus; folia caulina erecto-patentia, madefacta stricta, sicca appressa, e basi subquadrata laxa superne dilatata erecta subito in subulam lanceolatam reflexiusculam minute areolatam chlorophyllosam producta, margine minute serrulato, dorso papillis minutis aspero, nervo lato subulam superiorem totam fere occupante; perich. basi latiora laxius reticulata; theca in ped. elongato rubro globosa sulcata microstoma aurantiaca, operc. convexo-conico; perist. simplex externum. †.

Patria. Prope Quito: W. Jameson.

Habitu *B. pomiformis*, sed *B. ithyphyllae, patenti* et *robustae* affinior, differt autem ab omnibus hisce conge-

neribus foliis brevioribus; a *B. patente* et *ithyphylla* perist. simplici, a *B. robusta* inflorescentia jam distat. Colore partium fere omnium primo adspectu distinguenda.

Non satis notae.

38. **B. robusta** Hook. et Wils. I. p. 495. — Dioica; theca in ped. breviusculo erecta globosa majuscula, siccitate sulcata (gymnostoma?), operc. breviter conico-rostellato subobliquo luteo.

Fl. Antarct. I. p. 133. t. 59.

Patria. Insula Campbelli: J. D. Hooker.

b. *Brevipedunculatae.*

44. **B. brevifolia** Brid. II. p. 737!

B. Mülleri Mont. in C. Müll. Syn. I. p. 498!

Sectio IV. **Eubartramia** C. Müll. — Caulis dichotome divisus; folia stricta erecta, nec vaginata nec plicata, minute areolata.

A. *Crispatae.*

a. *Longipedunculatae.*

45b. **B. campylopus** Schimp. (in litteris!); folia e basi lanceolata longe aristata; perich. longissima; omnia scabra, margine serrata; theca in ped. arcuato subglobosa; caetera *B. pomiformis.*

Patria. Mexico, Pico de Orizaba, alt. 12000′: Liebmann.

Habitus *B. pomiformis* var. *crispae,* sed pedunculo arcuato primo intuitu distinguenda, medium inter *B. pomiformem* et *Hallerianam* tenens.

b. *Brevipedunculatae.*

46. **B. Jamesoni** Tayl. I. p. 500.

Mentiente *Mittenio* ad *B. viridissimam* pertinet, quod non credimus!

Sectio V. **Oreadella** C. Müll. — Caulis fastigiatim divisus; folia lanceolata complicato-carinata, margine maxime revoluta weisioidea, quadrate areolata, sublaevia.

simi truncato-lanceolati irregulares t
culati, linea media exarati, albidi ru
erecti.

Trib. XVIII. POTTIOIDEAE.

Folii cellulae parenchymaticae qu
basin papillis pro more undique obtec
lucidae laeves.

Subtrib. I. CALYMPERACEAE.

Cellulae folii basilares rigidae
fragilissimae inanes foraminatae.

Gen. I. **Encalypta** Schreb. I.

Calyptra longe campanulata. Peri
plex vel duplex; externi dentes 16 la
liiformes, linea media exarati, ruben
membrana in cilia 16 producta.

Sectio I. **Psilotheca** C. I. p. 513. — The

Sectio II. **Rhabdotheca** C. Müll. I. p. 519

Gen. II. **Calymperes** Sw. I.

Patria. Costa Rica, reg. montosa, elev. inter 5000 — 8000 ped., Febr., Apr. c. fruct.: A. S. Oersted.

Sectio II. **Eucalymperes** C. Müll. I. p. 526. — Folia plus minus plana loriformia, carinatinervia.

Gen. III. **Syrrhópodon** Schw. I. p. 528.

Calyptra cucullata glabra. Perist. simpl. d. 16 lanceolati integri; duplex tantum in unica specie: membrana carinato-plicata in dentes lineares conniventes fissa.

Sectio I. **Hyophilidium** C. Müll. I. p. 528. — Folia reflexa, basi vaginata, margine involuta, crispata, rigida, crassinervia.

Sectio II. **Orthophyllum** C. Müll. I. p. 532. — Folia erecta stricta, basi longissima pellucida amplexante, lanceolata, superne minute areolata.

Sectio III. **Orthotheca** Brid. I. p. 534. — Folia rigida, basi vaginata, loriformia, reflexa, margine nec involuta, difficile emollientia.

Sectio IV. **Eusyrrhopodon** C. Müll. I. p. 540. — Folia mollia, basi vaginata, reflexa, canaliculata, facile emollientia.

Subtrib. II. POTTIACEAE. I. p. 546.

Cellulae folii basilares molles pellucidae longiores, plerumque inanes, raro utriculo primordiali instructae.

Gen. IV. **Pottia** Ehrh. I. p. 546.

Calyptra dimidiata. Perist. nullum vel simplex: dentes lanceolati articulati simplices, seu linea longitudinali exarati rugulosi carnosi.

Sectio I. **Anacalypta** Röhl. I. p. 547. — Folia latiuscula plus minus spathulata, concava, vel planiuscula; theca peristomata.

2. **P. cespitosa** C. Müll. I. p. 548.

Patria. In rupib. calcareis prope Freiburg ad flum. Unstrut, „am Schlifter": Garcke 1850.

Sectio II. **Eupottia** C. Müll. I. p. 550. — Folia praecedentis; theca gymnostoma.

prope Aberdeen: W. Wilson auctum
1844; ad littus Cornvallense: Ralfs.

Species non satis not

Gymnostomum Combae De Not. (
caulis breviusculus erectus subsimplex
folia arcte imbricata, late spathulata,
plana, integerrima, nervo excedente bre
theca oblonga erecta, basi subattenuata,
tusiusculo subincurvo, dimidio breviori.

Patria. In Sardiniae septentrionalis
Tempio: Comba.

P. minutulae affinis species videtur.

Sectio III. **Hyophila** Brid. I. p. 558. —
vel peristomata; folia lata, marginibus involutis
lutacea.

A. *Acaules.*

19b. **P. Oerstediana** C. Müll.; *dioica*
plex humilis; folia caulina inferne ferrugi
ridissima, *valde involuta*, madore parum
angustiore brevi laxe reticulata pellucidâ
spathulate oblonga, obtusa, sed nervo f
dente *in apiculum brevissimum producta*

Patria. America centralis, Realejo in Nicaragua, mens. Dec. et Januar 1846—7: A. S. Oersted.

A *P. Barbula* notis explicatis certe distinguitur.

B. *Caulescentes.*

a. *Folia integerrima.*

27 b. **P. Wagneri** C. Müll.; erecta laxe cespitosa parce dichotoma rigidissima, folia tortilia anguste lanceolata, obtusiuscule acuminata, nervo crassiusculo viridi in mucronem *reflexiusculum brevem* excedente, *vix convoluta*, basi infima pellucide quadrate tenuiter superne sensim minute areolata, viridissima; perich. *conformia* longiora, basi longius, laxius et pellucidius reticulata; theca in ped. flavido *longiusculo* strictiusculo *cylindraceo-elliptica angusta, angustissime annulata, peristomata*, operc. longe recte subulato, dentibus densissime approximatis angustis irregulariter linea longitudinali exaratis obsolete articulatis pallidis carnosulis sublaevibus.

Patria. Columbia, Cumbre de Caracas: Wagner, hortulanus Halensis in alt. 3000′ 1848 legit.

A *P. Zeyheri* simili notis illustratis facile differt.

b. *Folia dentata.*

30 b. **P. contermina** C. Müll.; *dioica;* caulescens subsimplex sordide viridis; folia *patulo-cirrhata, sed nunquam circinnato-tortilia*, e basi brevi laxius reticulata firmiuscula fuscidulà late convoluto-oblonga obtusate et breviter acuminata, superne minute areolata subopaca, viridissima, superne remote dentata, *haud undulata*, nervo crasso in acumen *subexcurrente* ferrugineo; perich. *exteriora caulinis simillima*, intimum unicum minutum obtusissimum *integerrimum*, laxius reticulatum obsoletinerve; theca in ped. longiusculo inferne rubro erecta, *strictissime cylindrica*, basi toto ambitu subapophysata, latiuscule annulata, operc. subulato obliquo longiusculo; perist. nullum.

Patria. America centralis, Costa Rica, Aguacate alt. 1500′ mens. Novbr. 1847: A. S. Oersted.

A *P. Pöppigiana* caracteribus cursive impressis differt.

Incertae sedis.

Gymnostomum Jamesoni Tayl. (Lond. Journ. of bot. 1848. p. 279.); monoicum; caulis cespitosus erectus subsimplex luteo-viridis subbiuncialis; folia arcte imbricata concava erecta, ovato-lanceolata, marginata subdenticulata, nervo excurrente, margine incurvo; perich. similia; theca in ped. caule duplo longiori erecta, ex strumosa angusta basi cylindrica laevis, operc. longius tenuirostro; peristomium nullum v. membrana brevissime emersa; calyptra opaca brunnea dimidiata (?). †.

Patria. Monte Pichincha, ad nives aeternas: W. Jameson, 5. Julio 1847.

Auctor c. *Voitia* comparavit et muscum maxime solitarium declaravit, quare dubie huc revocavimus.

Sectio IV. **Hymenostylium** Brid. I. p. 562. — Folia angusta lanceolata carinata, margine erecto vel revoluto; theca gymnostoma.

32. P. Kunzeana C. Müll.

P. longirostris C. Müll. I. p. 562, ob nomen jam usum deleatur!

Gen. V. **Schistidium** Brid. I. p. 565.

Calyptra mitraeformis. Perist. nullum.

2. Sch. marginatum Hook. et Wils. l. c.

Fl. Antarct. II. p. 399. t. 151. f. 6.

Patria. Ad rupes humidas, alt. 500 pedum, haud infrequens.

Gen. VI. **Trichóstomum** Hdw. I. p. 567.

Calyptra dimidiata. Perist. simpl. d. sedecim usque ad basin in cilia duo filiformia haud tortuosa fissi.

Sectio I. **Pycnophyllum** C. Müll. I. p. 567. — Folia angusta stricta vel crispula carinato-concava, ubique e cellulis minutis areolata erecta, basi amplexantia nec vaginantia.

9. Tr. tophaceum Brid. I. p. 573.

Patria. In Pyren. centr. ad mortarium in muris subhumidis pagi Loucrup, non longe a Bagnères de Bigorre: Spruce; Pyr. or. ad St. Antoine de Galamus cum *Barbula marginata*, nec non prope turrim nomine La Massane insignitam: Montagne.

11. **Tr. trifarium** Sm. I. p. 574.

Patria. Pyren. occ., in calcareis subhumidis pr. Pau: Spruce; pr. Burdigalam: Grateloup.

Non satis notum.

1. **Tr. Anomodon** Bals. et De Not. (Syllab. Musc. p. 191.); caulis breviusculus simplex erectus vel ascendens vix radiculiger; folia subpapillosa, saturate viridia, inferiora remota, suprema arcte imbricata, e basi subappressa latiuscula patentissima, lanceolato-subulata acuta carinata, margine revoluta, superne denticulata, nervo subexcurrente valido; perich. conformia, sicca cirrhato-contorta; theca oblonga erecta, operc. conico attenuato obtusiusculo, dimidio breviori. †.

Didymodon Anomodon Bals. et De Not. Pugill. No. 10.

Patria. Ad margines viarum prope Neapolim: Balsamo.

A *Tr. crispulo* ex auctore differt: foliis lanceolato-subulatis, theca oblonga et peristomio.

Sectio II. **Leptodontium** Hmp. I. p. 577. — Folia squarroso-reflexa, complicato-concava, flexuosa, basi vaginante cellulis inanibus longius laxioribus, superne chlorophyllose quadrato-areolata.

A. *Pusilla.*

15. **Tr. flexifolium** Sm. I. p. 577.

Zygotrichia cylindrica Tayl. in Mackay. Fl. Hib. II. p. 26.

B. *Elata.*

16b. **Tr. subalpinum** De Not. (Syllab. Musc. p. 184.); caulis *elongatus* ascendens simplex, inferne denudatus, tandem innovando ramo uno alterove auctus; folia in sicco passim fusca, madore flavicantia, punctato-areolata, conferta, e basi amplectante patenti-recurva, *ob-*

longo-linearia, obtusiuscula, canaliculata, margin
ferne recurvis, fortiter serratis, nervo apicem
gente valido praedita, sicca tortilia; perich.
theca in ped. longiusculo laete purpureo erecta
teres, lenissime curvula, operc. conico acuto
breviori; perist. d. 32 per paria approximati
nodulosi, ad apicem usque liberi, in uno alter
trabeculis ope hinc inde connati. †.

Patria. Secus amnem infra Lanzo in Pedem
Italiae: Lisa aestate 1837.

Ex auctore *Tr. flexifolio* simile, sed notis
distans. — *Leptodontium* distinctum videtur.

17b. **Tr. sulphureum** C. Müll.; *dioicum;* cespit
tissimi rigidi elati *sulphurei*, laxe cohaerentes; ca
mento fusco inter folia ad apicem usque fere
flexuosus, parce breviter ramosus, gracilis, *ubiq*
phureus; folia caulina *Tr. ulocalycis*, sed basi brevi
laxius reticulata fuscidule striata; perich. *Tr. ulocal*
sed *basi e cellulis laxis elongatis haud interruptis*
culata; theca in ped. brevi flexuoso flavo erecta
cylindracea arcuata, apicem versus angustata, m
ma, basi aequalis, pallida, dein fusca, ore p
operc. oblique subulato longiusculo; perist. d. bre
infra orificium oriundi, angustissimi, irregulariter
bifidi, laeves, aurantiaci, remote articulati.

Patria. America centralis, Nicaragua in mon
canico Viego, alt. 5000 pedum: A. S. Oersted
1847 legit.

A *Tr. ulocalyce* notis illustratis differt, e thec
ma *Tr. aggregato* simile. — Flos masc. lateralis,
tarius, turgide gemmaceus, foliis latissime rotundato-
tis, brevissime acuminatis, apice vix reflexis, basi
reticulatis, integerrimis; antheridiis maxime clavatis
cuatis, paraphysibus aureis multis angustissimis
Parcissime fructificans.

18b. **Tr. subdenticulatum** C. Müll.; *dioicum;*
epunctato simillimum, sed statura multo robustior,

caulina et perich. majora, superne *minute aequaliter denticulata*, nec inaequaliter eroso-serrata; theca in ped. *elongato* flavido erecta, *ampliuscule cylindrico-oblonga robusta, superne attenuata subarcuata*, ochracea, dein fuscescens, annulata, *microstoma*, operc. e basi depresso-conica oblique rostrato; perist. d. longe infra orificium oriundi, 2—3-fidi, longiusculi, fragiles, articulati, luteo-fusci, cruribus cohaerentibus laevibus.

Trichostomum squarrosum Al. Brann. Hb.

Patria. Java: Blume.

A *Tr. squarroso* reticulatione folii densa et pedunculo elongato primo momento distinguitur.

Sectio III. **Eutrichostomum** C. Müll. I. p. 581. — Folia carinato-concava erecta inflexo-tortilia, basi vaginante pellucide laxe reticulata calymperoidea, superne opaca, angusta.

B. *Inflorescentia monoica.*

23b. **Tr. densifolium** Mitten (Lond. Journ. of bot. 1851. p. 53!); monoicum, dense cespitosum albido-tomentosum luteum inferne fuscescens; folia patenti-recurva tortilia squarrosa, late lanceolata, nervo sub apice evanido, margine e basi ad medium usque reflexo, apicem versus serrulata, basi e cellulis elongatis angustis firmis flavidis superne minutissime rotundatis areolata, minute et densissime papillosa; perich. longissime convoluta; theca in ped. flavo torto cylindracea leviter curvula brunnea, operc. stricto dimidio breviori; perist. d. breviusculi aurantiaci; calyptra straminea. †.

Patria. Prope Quito: W. Jameson.

Habitu *Barbulae calycinae* et *Trich. Barbulae;* auctor cum *Tr. luteo* Tayl. (*Tr. ulocalyce* nob.) quoque comparavit.

C. *Inflorescentia dioica.*

a. *Robustiora.*

29. **Tr. cylindricum** C. Müll. I. p. 586.

Weisia tenuirostris Hook. et Tayl. in Mackay. Fl. Hib. II. p. 14.

Patria. Pyren. occid., reg. subalpina, in sua
lorum supra thermas dictas „les Eaux Bonn
centr., in vicinia Bagnères de Luchon, Superb
Superbagnères, Lac de Séculéjo, Cascade du Cer
Spruce.

29b. **Tr. Bombayense** C. Müll.; *dioicum; Tr.*
drico simillimum, sed caulis inferne gracilis apice
cte comosus; folia latiora, plerumque nervo exa
obtusiuscule acuta minus carinata; theca *siccitate*
arcuata, late annulata; perist. d. *e basi brevi*
lanceolata tenera trabeculata laevi in crura duo
brevissima pallida subrugulosa leviter et remote
lata fissi.

Patria. India orientalis, Bombay, inter *Neh*
procumbentem et *angustam* comm. Kegel ex hort
Van Houtte.

29c. **Tr. aeneum** C. Müll.; habitus, forma, direct
color foliorum *Tr. rubelli*, distinctum tamen: inflores
tia dioica, theca longiore molli tenuiter membran
annulo latiore, perist. tenuiori, membrana basilari lati

Didymodon aeneus Schimp. in litteris.

Patria. Mexico, in latere Pic. de Orizaba: L
mann.

Folia pro more solidiora evadunt quam in *Tr*
bello, minus acuta et saepius obtusiuscula, in api
brevem producta, apice denticulata, ad summam
mitatem marginibus revoluta, sicca contorta.

29d. **Tr. campylocarpum** C. Müll.; *dioicum*;
cespitulosus humilis subsimplex *rufescens*; folia cris
madore patentia inferiora, minuta, superiora et peric
tialia longiora et longius vaginantia, omnia e basi v
nata laxissime reticulata maxime pellucida tenerâ lin
lanceolata acuminata, *apice hic illic eroso-dentata*,
nato-concava, margine erecta, excurrentinervia, e c
lis minutis valde opacis areolata; theca in ped. longius
purpureo tenuissimo laevi *subito cylindraceo-oblonga*,
gusta, *arcuata*, *inclinata*, intense rufa, operc. conico

bulato subobliquo, breviusculo, annulo nullo; perist. d. subulati rufi opaci maxime scabri.

Trich. inclinatum Schimp. in litteris?

Patria. America centralis, Costa Rica, in regione montosa inter 5000—8000′ elevat., mens. Febr. 1847: A. S. Oersted. E regno Mexicano, a Liebmann collectam suam speciem Schimper habuit.

Tr. rubello habitu et colore affinissimum, sed ab illo ceterisque congeneribus caracteribus explicatis distinctissimum.

Sectio IV. **Desmátodon** Brid. I. p. 588. — Folia lata plus minus plana et ovata, ubique e cellulis hexagonis ampliusculis chlorophyllosis basi plus minus pellucidis areolata, cymbiformi-concava vel plus minus carinata.

A. *Theca erecta.*

a. *Inflorescentia monoica.*

35. Tr. convolutum Brid. I. p. 590.

Patria. Regione montosa Pyr. centr. in rupib. argillaceo-schistosis subdecompositis pr. pagum Loucrup circa Bagnères de Bigorre: Philippe; Pyr. or. ad viam quae ducit a Seo d'Urgel ad Andorram: Arnott; apud Concampa et ad Pla de Sorroco pr. Prats de Mollo: Montagne.

36. Tr. flavicans C. Müll. I. p. 591.

Patria. Ex Columbus Ohionis copiose misit Sullivant formam theca longiore cylindracea, parum curvula erecta.

B. *Theca obliqua vel nutans.*

40. Tr. obliquum C. Müll. I. p. 594.

Patria. Alpes Algovicae Bavariae loco Stuibengipfel 5431′ alt.: Sendtner 30. Jun. 1849.

Gen. VII. **Barbula** Hdw. I. p. 595.

Calyptra dimidiata. Perist. simpl. dentes 32 ciliati contorti. Operculi cellulae contortae.

Sectio I. **Aloina** C. Müll. I. p. 596. — Folia ad nervum lamellata, basi vaginantia, margine involuta, tortilia, viridissima, opaca.

Sectio II. **Argyrobarbula** C. Müll. I. p. 597. — Folia ad nervum lamellata, basi amplexantia nec vaginata, margine erecto vel revoluto nec involuto, late-ovata, chlorophyllo superne saepius destituta.

7. B. papillosa Wils. I. p. 598.

Patria. Regione montosa Pyren. occid. in arboribus nemoris Parc de Pau dicti: Spruce.

Sectio III. **Tortella** C. Müll. I. p. 599. — Folia cirrhata rigida opaca minute areolata, basi vaginantia plus minus albida tenera, margine erecto plus minusve involuto, rarius revoluto, carinata, elamellosa.

Sectio IV. **Hyophiladelphus** C. Müll. I. p. 604. — Folia involuta elamellosa, spathulato-ovata, basi amplexantia nec vaginantia, parum opaca.

Sectio V. **Senophyllum** C. Müll. I. p. 606. — Folia plus minus torta, angusta, elamellosa, plerumque lanceolata, carinata, superne minute et rotundate areolata, saepe opaca, margine revoluto v. erecto.

A. *Folia margine erecto.*

20. B. erythrodonta Tayl. I. p. 606.

Streptopogon erythrodontus Wils. n. gen. ex Mitten in Lond. Journ. of bot. 1851. p. 51. Calyptra *mitraeformis* superne scabra; perist. simplex ciliiforme, cilia 32 aequidistantia, in cirrhola duo postice fissa, laevia, in spiram unam dextrorsum contorta, basi in membranam angustam coadunata; cellulae operculi contortae. — Calyptra revera campanulata latere nunquam fissa?

B. *Folia margine revoluto.*

a. *Folia stricta.*

34. B. icmadophila Schimp. I. p. 614.

Br. Europ. Fasc. 43. Suppl. II. — cum tab. — Meuse Augusti. —

b. *Folia recurva.*

41. B. Crügeri Sond. I. p. 618.

Patria. Columbia, Cumbre de Caracas: Wagner 1848.

48b. **B. elongata** Wils. (Mitten in Lond. Journ. of bot. 1851. p. 51!); dioica, *elongata* parce dichotome ra-

mosa viridis, dein rufescens; folia caulina siccitate torta, madefacta patula, e basi erectà elongata dense reticulata lanceolata acuminata, *apice obtusiuscula*, excurrentinervia, margine reflexa *apicem versus inaequaliter repando-serrulata*, e cellulis minutis fere laevibus chlorophyllosis areolata; perich. erecta longiora, e basi convoluta flavida; theca in ped. *longo* rubro *elongate cylindrica curvula*, operc. subulato; perist. in membrana breviuscula circiter bis contortum. †.

Patria. Prope Quito: W. Jameson.

Caracteribus laudatis a *B. campylocarpa* distare videtur.

Sectio VI. **Eubarbula** C. Müll. I. p. 623. — Folia late spathulato-ovata, basi amplexantia, elamellosa, margine erecta vel revoluta, basi e cellulis magis flaccidis mollibus reticulata; plantae humiles parum dichotomae.

A. *Margine revoluto.*

53. **B. mucronifolia** Schw. I. p. 624.

B. hyperborea Brid. I. p. 583 ex insula Melville huc?

54. **B. canescens** Montagne (primus in Arch. de Bot. I. p. 133! non Bruch!).

B. *Margine erecto.*

a. *Folia immarginata.*

61 b. **B. denticulata** Wils. (Lond. Journ. of bot. 1851. p. 50, ex Mitteni diagnosi!); dioica, cespitosa humilis subsimplex; folia remota spathulata acuminata, nervo in mucronem brevem excurrente, *margine e medio ad apicem denticulato*, textura tenera molli, basi cellulis *elongatis laxis maxime pellucidis*, superne minoribus, *chlorophyllo fere destitutis*; theca in ped. longo rubro torto cylindrica fusca, operc. oblique longe conico, thecam dimidiam aequante, annulo simplici persistente; perist. fere ad medium tubulosum aurantiacum. †.

Patria. Peru, in vicinia urbis Quito: W. Jameson.

Ex obs. Mitteni notis designatis a *B. cuneifolia* proxima differt.

b. *Folia marginata.*

63. B. marginata Br. et Sch. I. p. 629.

Patria. Regione montosa Pyr. occ. in muris prope Cauterets: Spruce.

66. B. densifolia Hook. et Wils. I. p. 631.

Fl. Antarct. II. p. 409. t. 153. f. 1.

Sectio VII. **Syntrichia** Web. et Mohr. I. p. 632. — Habitus praecedentis, sed multo elatior robustior; folia basi e cellulis magis hyalinis calymperoideis instructa vaginante reflexa.

73. B. robusta Hook. et Gr. I. p. 635.

Fl. Antarct. II. p. 409. t. 153. f. 2.

75 b. B. aculeata Wils. (Mitten in Lond. Journ. of bot. 1851. p. 51!); dioica? elata parce ramosa, sordide virens, inferne rufescens; folia imbricato-patentia recurvave, lanceolata longe acuminata, apicem versus serrata, nervo rubro, acumine undulato pallido desinente, thecae in ped. saepius geminatis breviusculis cylindricae; perist. basi in membranam angustam breviusculam unitum, breve pallidum. †.

Patria. Prope Quito: W. Jameson.

Inter *B. robustam* et *serrulatam* sedem tenere legitur.

Non satis notae.

1. Tortula rotundifolia Hartm. (Skand. Fl. Ed. V. p. 381.); folia concava rotundata, basi lata contracta, rotundato-obtusa, nervo in mucronem brevem laevem apice pellucidum excurrente. †.

Patria. In truncis arborum Scaniae prope Lund, in truncis Fraxini, *Barb. laevipilae* intermixta: Borgström.

Muscus 2—3 lin. altus; folia e basi lata subquadrata in laminam subrotundam basi duplo latiorem et longiorem apiceque capillari 8—10-ies longiorem dilatata, cellulis magnis rotundis viridibus valde pellucidis. — An *B. latifoliae* varietas?

Gen. VIII. **Cerátodon** Brid. I. p. 645.

Calyptra dimidiata. Perist. simpl. d. 16, basi membrana cellulosa connati, in crura duo longa nodoso-articulata fusca utrinque pallida fissi, parte inferiore dense trabeculati.

1. **C. purpureus** Brid. I. p. 646.

C. Corsicus Br. Europ. Fasc. 43. t. Suppl. I, foliis caulinis longioribus angustioribus, perich. latis subito in acumen breve attenuatis, theca graciliore dentibusque pallidioribus grossius rugulosis. Prope Ajaccio Corsicae insulae: Requien 1849.

Gen. IX. **Tridontium** Hook. fil. I. p. 648.

Calyptra conica, latere fissa. Perist. simpl. d. 16 elongati, siccitate reflexi, e ciliis 3 articulatis magis minusve connexis formati.

Gen. X. **Weisia** Hdw. I. p. 648.

Calyptra dimidiata. Perist. simpl. d. 16 lanceolati integri v. cribrosi; saepius nullum.

Sectio I. **Rhabdoweisia** Br. Europ. I. p. 649. — Theca sulcato-striata; perist. d. subulati; folia crispata.

Sectio II. **Euweisia** C. Müll. I. p. 651. — Theca laevis peristomata v. nuda, dentibus lanceolatis saepe pertusis; folia crispata interdum rigida.

7. **W. Wimmeriana** Br. et Sch. I. p. 653; androgyna vel hermaphrodita.

Hymenostomum murale Spruce in Musc. Pyr. n. 236 ex Spruce!

Patria. Austria, in cacumine montis „der hohe Blassen" dicti prope Hallstadt: Papperitz 1841. 5. Jul.; Pyrenaei occid., reg. montosa in arenosis circa Pau et Oloron et in muris prope Ste. Marie d'Oloron: Spruce.

Sectio III. **Hymenóstomum** R. Br. I. p. 660. — Habitus praecedentis, sed thecae orificium columella apice dilatata clausum.

a. *Folia patula.*

20b. **W. senocarpa** C. Müll.; *dioica;* cespites humiles densiusculi viridissimi; caulis ascendens parce ramosus

tenellus, madore ob folia valde patula crassiusculus; folia caulina siccitate crispata, madore stricta, parum curvata, e basi oblonga, e cellulis laxioribus elongatis pellucidis parenchymaticis reticulatâ, anguste lanceolato-acuminata, nervo excurrente mucronata, minute quadrate areolata, opaca, margine integerrimo distincte involute; perich. longiora basi laxius reticulata; theca in ped. *elongato* laevi flavido erecta, *anguste cylindrica vix obliquiuscula*, pallida, lato annulata, *ore latiori* purpureo, operc. oblique aciculari; *columella parum dilatata;* calyptra pallidissima glabra angustissima.

Patria. America centralis, Costa Rica, reg. montosa, inter 5000—8000 ped. elevationis, mens. Martii 1848. legit A. S. Oersted.

A *W. microstoma* notis declaratis habituque robustiore altiore longe distat. Habitu *W. tortili* magis similis, sed thecae forma primo visu distinguitur.

b. *Folia squarroso-reflexa.*

22 b. **W. phascoides** C. Müll.; monoica, *W. squarrosae* proxima, distincta: foliis angustioribus, perich. longioribus, theca brevius pedunculata vix emergente, operculo orificium arctius adhaerente, sporis minoribus, flore masculo terminali monophyllo, paraphysibus multo longioribus. †.

Hymenostomum phascoides Wils. in Bryol. Europ. Fasc. 42. Suppl. I. c. tab.!

Patria. In terra arenaceo-humosa et subargillosa prope Mere comit. Cheshire: W. Wilson 1834; ad margines piscinae exsiccatae prope Hustpierpoint com. Sussex: Mitten 1847. — *Septembri.*

Non satis notae.

1. **Hymenostomum planifolium** Sendtn. (in Regensb. Denkschrift. 1841. p. 143.); caulis humilis simplex erectus; folia inferiora breviora, conferta, superiora recurva, siccitate crispata, linearia, acuta, nonnunquam mucronata, integerrima, obsolete canaliculata, subplana, marginibus

non involuta, obscure viridia, areolatione tenera e cellulis oblongo-rectangularibus texta, nervo excurrente; perich. 2—3 multo longiora, pedunculum aequantia, linearisubulata, canaliculata, basi amplectente erecta, apicem versus recurvata; theca in ped. erecto solitario bilineari virenti-lutescente pallido in thecam incrassato ovalis vel ovato-elliptica, curvula, subgibbosa, non raro paullum inclinata, ore obliquo angustata, olivacea, demum fusca, operc. conico oblique obtuse elongato dimidia theca longiori, calyptra thecam basi aequante. †.

Patria. In terra nuda horti „zu Molitsch bei Jauer" Silesiae, Aprili: Sendtner.

Pottiacea suspectissima.

Entosthymenium Brid. Br. Univ. I. p. 761.

Nomen ab *εντοσθεν intus* et *ὑμην membrana* e peristomii indole compositum.

Calyptra cucullata. Perist. ext. nullum; internum: membrana angusta annularis margine tandem lacinulata. Theca subinaequalis apophysata terminalis.

1. **E. tristichum** Brid. (l. c.); dioicum? parvulum erectum ramosiusculum fastigiato-cespitosum barbuloideum; folia approximata subtristicha patentia, siccitate ad modum Barbulae in caulem oblique incurva, infima laxa breviora angustiora, ascendendo mole aucta, superiora ovato-lanceolata acutiuscula carinato-concava integerrima, nervo continuo crasso, cellulis subquadratis luride viridibus punctulatis tenuissimis; perich. similia, intima breviora, vaginantia; theca in ped. terminali innovando laterali brevi semunciali tortili ferrugineo, apice in apophysin parvulam rotundam nigricantem incrassato erecta ovata subaequalis fuscidula. †.

Patria. In Gallia australi circa Dax Aquitaniae: Grateloup in Hb. Decandollei.

In Hb. Bridelii non observavimus.

Subtrib. III. ORTHOTRICHACEAE. I. p. 665.

Cellulae folii basilares infimae solae molles, superiores plerumque incrassatae, rarius pellucidae normales.

Hemicyclus I. **Orthotricheae.** I. p. 666.

Folia distincte papillosa, papillis plerumque tuberculatis, saepe minutissimis, rarius obsoletis. Peristomia plerumque carnosula et pallida, rarissime aurantiaco-colorata.

Gen. XI. **Zygodon** Hook. et Tayl. I. p. 666.

Calyptra dimidiata. Perist. nullum, simplex externum seu duplex; externum e dentibus orthotrichoideis 32 simplicibus, geminatis vel bigeminatis, planis, pallidis, internum e ciliis 8—16 linearibus vel externis dentibus similibus compositum. Theca pseudolateralis.

Sectio I. **Amphidium** Nees ab Es. I. p. 667. — Folia lata, spathulata, e cellulis pottioideo-hexagonis areolata, planiuscula v. carinata, laevia, erecta; theca sulcata.

Non satis noti.

2b. **Z. ligulatus** C. Müll.; dense cespitosus humilis, *lurido-rufescens, apice virens;* caulis tenuis fragilis dichotomus; folia caulina conferta, *anguste spathulato-ligulata obtusata,* carinata aequalia, margine inferne convexo-revoluto, ubique integerrimo, nervo subvalido rufescente ante apicem evanido, cellulis basi laxis majuscule hexagonis fuscidulis, superne sensim minoribus *minute hexagonis subquadratis pachydermibus pellucidis rufescentibus ad marginem magis incrassatis rotundatis, folia igitur veluti indistincte marginata,* juniora chlorophyllosa molliora nec marginata. Caetera non observata.

Encalypta? ligulata Spruce in Musc. Pyr. n. 331. et in Ann. and. Mag. of Nat. Hist. 1849. Musc. Pyr. n. 337!

Patria. Regione montosa superiore Pyrenaeorum, in rupibus humidis praesertim ophiticis, locis Labassère, Superbagnères et George de Cauterets: Spruce.

Folia sectionis *Amphidii* typica, nec Encalyptae nec alius Pottiaceae habet et species ob caracteres laudatos a congeneribus suis distinctissima pulchra.

Sectio II. **Codonoblépharon** Schw. I. p. 668. — Folia parva angusta, e cellulis rotundatis superne areolata, papillosa, complicata v. carinata, e basi erecta reflexa vel squarrosa; theca sulcata.

Sectio III. **Euzygodon** C. Müll. I. p. 671. — Folia angusta, margine plus minus convexa, e cellulis rotundatis superne areolata, papillosa, complicata v. carinata, e basi erecta reflexa vel squarrosa; theca sulcata.

21. Z. tetragonostomus A. Br. I. p. 677; *Z. Reinwardti* simillimus, theca *pentagona!*

22. Z. trichomitrius Hook. et Wils. I. p. 677.

Patria. Prom. b. spei, Buschmannsland: Zeyher.

24. Z. Moritzianus C. Müll. I. p. 678.

Patria. Columbia, Galipan, 6000 ped. altus, ad arbores cum Macromitriis et *Schlotheimia glauca*: Wagner 1849. Septbr.

Sectio IV. **Ulozygodon** C. Müll. I. p. 680. — Folia angusta flexuosa patula, parum reflexa, superne rotundate areolata, crispula v. spiraliter torta, carinata; theca sulcata.

29. Z. Mougeotii Br. et Sch. I. p. 681.

Patria. Regione montosa et subalpina per Pyrenaeos sylvaticos, rupestris, frequens, sed rarissime fructificans, juxta lacum Séculèjo thecis deoperculatis 22. Sept. 1845. Spruce.

Sectio V. **Anoectangium** Hdw. I. p. 683. — Folia angusta lanceolata, superne dense areolata; theca laevis.

33. Z. compactus C. Müll. I. p. 683.

Hedwigia aestiva Hook. Engl. Fl. V. I. p. 68.

34. Z. pusillus C. Müll. I. p. 684.

Patria. Costa Rica Americae centr., inter 5000—8000 ped. elev., mens. Febr. 1847: A. S. Oersted.

35 b. **Z. tenellus** Mitten (Lond. Journ. of bot. 1851. p. 561); dense compactus humilis lutescens inferne ferrugineus; caulis tenellus innovando ramosus; folia caulina lineari-lanceolata, nervo carinato excedente mucronata; comalia longiora ligulata, ubique minutissime et densissime papillosa opaca; perich. ovato-acuminata, laxius reticulata, evanidinervia; theca in ped. mediocri gracili recta ovali-pyriformis, sub ore parum constricta. Operc. et calyptra desunt. †.

Patria. Prope Quito: W. Jameson.

Ex auctore *Z. compacto* et *tenerrimo* simillimum.

Gen. XII. **Drummondia** Hook. I. p. 686.

Calyptra dimidiata magna, thecam superans late concava. Perist. simplicis dentes 16 brevissimi imperfecti truncati integri, linea longitudinali tenuissima notati, dense trabeculati rufi leptodermes laeves plani.

Gen. XIII. **Orthótrichum** Hdw. I. p. 688.

Calyptra campanulata plicata. Perist. nullum, simplex vel duplex, Zygodontis.

Sectio I. **Orthophyllaria** C. Müll. I. p. 688. — Folia erecto-appressa, sicca atque madefacta erecta stricta.

5. **O. crassifolium** Hook. et Wils. I. p. 691.

Fl. Antarct. I. p. 125. t. 57.

6. **O. angustifolium** eor. l. c.

Fl. Antarct. I. p. 125. t. 57.

Sectio II. **Euorthotrichum** C. Müll. I. p. 694. — Folia sicca imbricata, madefacta subito reflexo-squarrosa, dein erecto-patula, recurva.

A. *Folia chlorophyllosa.*

b. *Theca immersa v. emergente.*

β. Epilifera.

†. *Anguste lanceolata.*

18. **O. alpestre** Hsch. I. p. 698.

Bryol. Europ. Fasc. 42. Suppl. c. tab.

18 b. **O. callistomum** Fischer-Ooster (Bryol. Europ. Fasc. 43. t. suppl. III.); *monoicum;* flos masculus terminalis; *O. stramineo* simillimum; folia caulina latius lanceolata, acuminata, profunde carinata, ala utraque sulcata, margine revoluta, dense granulosa chlorophyllosa, basi hyalina quadrate et hexagone ad cellularum parietes crenulate reticulata, cellulis apicem versus rotundatis, nervo angusto, sub apice evanido; theca in ped. perbrevi immersa, elliptica brevicolla microstoma lutescens, striis 8 aurantiacis, sicca evacuata elongata subcylindrica sulcata, sub ore vix constricta, brunnea, operc. minuto aurantiaco recte acuminato, calyptra pallide straminea glaberrima; perist. d. ext. 8 bigeminati breviores pallidi, interni cilia 8 *lata solida, aurantiaca, apice in discum centro pertusum confluentia, cupulam sistentia, persistentia.* †.

Patria. Helvetia, in cortice Fagi sylvae „Schorenwald" prope Thun: Fischer-Ooster. — *Julio.*

Ab omnibus congeneribus perist. interni structura memorabili facile distinguitur.

††. *Late lanceolata.*

21. **O. Sprucei** Mont. I. p. 699.

Bryol. Europ. Fasc. 42. c. tab. Suppl.

B. *Folia chlorophyllosa.*

1. Tenella.

29 b. **O. Meyenianum** Hmp. (in litteris!); *monoicum;* pusillum tenellum dense cespitosum, parce dichotomum, pallide virens; folia caulina dense imbricata, madore subito reflexa, e basi decurrente plus minus ovatâ latiuscule lanceolata *apice ligulate obtusa,* juniora acuminata, *distinctius reflexa, margine hic illic flexuoso,* usque fere ad apicem valde revoluto, integro, profunde carinata, parum papillosa, e cellulis *multo majoribus grossis incrassatis* rotundatis, basi quadratis et ad alas decurrentes laxis pellucidis areolata, nervo ante apicem evanido; perich. similia strictiora, paraphyses numerosas elongatas flavidas cingentia; theca ex vaginula breviter exserta

erecta, e collo longiusculo oblonga, olivacea, 8-sulcata, operc. depresso cupulato breviter acuminato, calyptra sparsim pilosa; perist. d. ext. octo bigeminati, breves pallidi rugulosi fissiles, ciliis 8 aequalibus constantibus simplicibus subulatis flavidis.

Patria. Manila: Meyen.

Ab *O. assimili* proximo caracteribus designatis certe refugit. — Fol. perig. floris masc. turgidi late convolutaceo-ovata breviter acuminata, basi laxe reticulata colorata.

2. Robusta.

33b. **O. laxifolium** Wils. (Mitten in Lond. Journ. of bot. 1851. p. 57!); monoicum, laxe pulvinatum elatum fastigiatim ramosum luteo-virens; folia caulina lanceolata acuminata, basi angustata, plicata carinata, margine revoluta, evanidinervia, e cellulis minutis papillosis areolata; perich. basi latiora laxiora, apice angustiora acutissima; theca immersa oblonga laevis pallescens, siccitate 8-plicata, operc. conico apiculato, calyptra scaberrima straminea apice purpurea totam fere thecam obtegente; perist. ext. d. 8 bigeminati, siccitate revolubiles, pallidi, ciliis 8 dentes longitudine et latitudine aequantibus, ochraceis, basi e cellularum tribus seriebus compositis. †.

Patria. Prope Quito: W. Jameson.

Ex obs. Mitteni *O. leptocarpo* et *specioso* simillimum, sed gracilius, folia angustiora longiora, siccitate et madore parum imbricata, cilia illis *O. speciosi* ex substantia aemulantia, valde lata, basi aequaliter superne irregulariter cellulosa.

Incertae sedis.

43b. **O. recurvifolium** C. Müll.; *dioicum? O. Lyellii* simillimum, sed folia e basi longe decurrente, e cellulis longiuscule quadratis laxiusculis laevissimis reticulata, *lineis aureis saepius striatâ* subanguste oblongo-lanceolata valde recurva, margine valde convexa undulata et supra medium *argute serrata*, profunde canaliculata, *nervo*

dorso apice in lamellam simplicem erectam dilatato subintegro excedente breviter mucronata, e cellulis angulate rotundatis incrassatis parvis areolata, tenerrime papillosa.

Syrrhopodon recurvifolius Hsch. in Linnaea XV. p. 118. — C. Müll. Synops. I. p. 546.

Patria. Prom. b. spei, ad rupes montis Tabularis: Ecklon.

Caracteribus laudatis ab omnibus congeneribus achlorophyllosis elatis distinctissimum et pulcherrimum! Fructus nulli adhuc visus.

Sectio III. **Ulota** Brid. I. p. 711. — Folia sicca crispata, madefacta primum subito reflexo-squarrosa, dein erecto-patula, recurva.

51. **O. germanum** Mont. I. p. 715.

O. luteolum Hook. et Wils. in Fl. Antarct II. p. 403. t. 152. f. 2.

Gen. IV. **Cryptocarpus** Dz. et Molkb. I. p. 718.

Calyptra mitraeformis minuta, operculum solum obtegens, haud plicata, pilosa. Perist. nullum.

Gen. XV. **Macromitrium** Brid. I. p. 719.

Calyptra campanulata plicata, basi plus minus profunde laciniata. Perist. nullum, simplex vel duplex; externum: dentes 16 lanceolati, discreti v. geminati, carnosi, pallidi v. rufescentes, nunquam reflexi thecae adpressi; internum: membrana plus minus elata truncata vel in dentes externis similes fissa.

Sectio I. **Macrocoma** Hsch. I. p. 720. — Caulis filiformis hypnoideus; folia appressa stricta parva, madore patentia; theca microstoma.

Sectio II. **Orthophyllina** C. Müll. I. p. 723. — Plantae dense pulvinatae; caulis teres robustus, foliis appressis strictis, circulariter areolatis.

Sectio III. **Eumacromitrium** C. Müll. I. p. 723. — Caulis plus minus incrassatus; folia sicca flexuosa v. crispata v. spiraliter contorta.

B. *Folia in spiram contorta.*

b. *Calyptra nuda.*

α. Pedunculus brevis.

19. **M. apiculatum** Brid. I. p. 737.

Patria. Cartago in Costa Rica, 5000′ alt., mens. Febr. 1847: A. S. Oersted.

19 b. **M. Wagnerianum** C. Müll.; *dioicum;* cespites latiusculi deplanati *humillimi, e ferrugineo amoene luteo-virentes, molles, facile emollientes;* caulis longe repens, ramis *tenellis gracilibus pusillis, junioribus veluti rosulatis,* divisis; folia caulina horride indistincte spiraliter imbricata; madore suberecta densissime imbricata, *angustissime aequaliter* oblongo-ligulata, obtusiuscula, nervo excurrente breviter reflexiuscule mucronata, *ubique ruguloso-plicata,* valde canaliculata, e cellulis ubique minutis, basi autem maxime incrassatis lutescentibus et superne magis opacis areolata, subglabra, limbo angusto lutescente ad medium usque instructa; perich. interiora erecta, latiora, magis lanceolata, haud reflexe mucronata; theca in ped. longiuscule exserto rubente laevi erecta, urceolata, senectute clavato-urceolata fusca macrostoma laevissima, firma pallida, *gymnostoma,* simpliciter annulata, operc. e basi depressa longe subulato recto; calyptra *tenella brevis amoene fusca et plicata,* basi laciniata, *apicem thecae tantum obtegens.*

Patria. Venezuela, Galipan, ad arbores in 4000′ altit., m. Aug. 1849: Wagner.

Sp. tenella, inter affines *M. apiculatum* et *brevipedem* sedem optime tenens, a priori notis cursive impressis, ab ulteriori ped. longiore recto, foliis rugulosis angustissimis, mollitie caulis, statura pusilla calyptraque descripta longe distans.

C. *Folia incumbenti-contorta.*

1. Folia elongate acuminata aristata.

24 b. **M. longipilum** Al. Br. (Hb.); *M. pilifero* simillimum, sed *multo robustius, intense fuscescens,* folia cau-

lina e basi late oblonga longitudinaliter profunde plicata et canaliculata, e cellulis maxime incrassatis *sublunatis* lutescentibus *maxime tuberculosis* areolatâ lanceolata, *apice lamina inaequali terminata* et nervo canaliculato in pilum longissimum hyalinum flexuosum tenuissimum integrum producta, superne cellulis *grosse rotundatis incrassatis* tenuiter papillosis *fuscis* areolata, integra, *reflexiuscula*.

Patria. Java: Blume.

A *M. cuspidato* simili pilo hyalino foliorum basi tuberculosorum primo visu distinguitur. Sterile solum visum.

27 b. **M. Braunii** C. Müll.; *dioicum; M. cirrhoso* simillimum, *aurescens;* folia caulina *subintegerrima*, margine *jam ad basin vel medium distincte reflexa*, basi e cellulis *lunatis pallescentibus epapillosis*, superne sensim minoribus et quadratis incrassatis laevibus *aurescentibus* areolata, nervo fuscescente excurrente percursa, *angustiora*, reflexa; perich. stricta erecta, breviora latius lanceolata, profunde plicata, rufescentia, ubique e cellulis incrassatis membranaceis elongatis plus minus lunatis areolata, nerve in subulam longiusculam strictam rufescentem excedente; theca in ped. brevi laevi innovando laterali globoso-ovalis laevis exannulata brunnescens, operc. e basi conica recte subulato; perist. duplicis d. ext. late lanceolati longiusculi incurvi, *tenuiter membranacei pallidi* rugulosi, linea longitudinali et lineis transversalibus multis articulati, interni dentes sedecim *ciliaeformes orthotrichoidei rudimentarii vel dentibus externis plus minus adglutinati pallidi, nunquam in membrana exserta positi, vix conspicui;* calyptra breviter laciniata subpilosa amoene plicata et lutea.

Schlotheimia cirrhosa A. Br. hb.

Patria. Java: Blume.

2. Folia lanceolata plus minus acuminata.

a. *Robusta.*

α. Folia erecto-patentia.

26 b. **M. Galipense** C. Müll.; *dioicum;* cespites subcompacti robusti latiusculi altiusculi, e ferrugineo virea-

centes; caulis repens, ramis *dense approximatis breviusculis fastigiatim divisis*, superne virentibus; folia caulina crispata, *interdum indistinctissime spiraliter crispula, madore erecto-patentia, breviuscula, substrictissima, latiuscule lanceolata breviter acuminata, apice eroso-crenulata*, nervo profunde canaliculato rufescente excurrente, margine ad latus unicum plus minus revoluto, cellulis basi elongatis valde incrassatis lutescentibus, ad plicam mediam longitudinalem basilarem *parce* tuberculoso-papillosis, *superne in foliis virentibus grossiusculis rotundis pellucidis veluti pottioideis*, in aliis foliis unipunctatis magis incrassatis; perich. intima latius et brevius lanceolata, ubique e cellulis elongatis incrassatis lutescentibus areolata; theca in ped. *breviusculo laevi* rubente erecta, ß-sulcata, e collo brevi pyriformi-ovalis, orificio minori; perist. (simplicis?) d. ext. densissime approximati opaci rugulosi; calyptra longiuscula nuda fusca, basi multifida, laevis.

Patria. Venezuela, Galipan, ad arbores alt. 6000 pedum: Wagner m. Septbr. 1849 c. *M. longifolio, pyriformi, Schloth. glauca* et *Zygodonte Moritziano* commixtum legit.

Perist. imperfectum et operculum non observavimus. Notis cursive impressis a *M. longifolio* haud dissimili distat.

β. Folia reflexa.

37. **M. longifolium** Brid. I. p. 737; pedunculus scaber.

β. *brevifolium;* folia latiora breviora sordide viridia, perich. breviora.

Patria. Var. β. Galipan Columbiae, ad arbores 6000′ alt., m. Julii 1849.: Wagner legit.

38 b. **M. Guatemaliense** C. Müll.; *dioicum;* cespites latissimi robustissimi altiusculi, e ferrugineo sordide virides, rigidiusculi, radiculoso-tomentosi; caulis longe repens, ramis erectis altiusculis, parum breviter fastigiatim divisis, densifoliis; folia caulina valde cirrhata, madore parum reflexa patula *M. longifolii β. brevifolii*, inferne

tuberculoso-papillosa, *superne papillis carentia, igitur haud unipunctata, sed e cellulis minutissime angulato-rotundatis subglaberrimis areolata;* perich. late lanceolata acuminata, longiuscula, strictissima, plicata, integra, *cellulis angustissime linearibus rectis, nec curvulis, nec incrassatis, nec lunato-tuberculosis, nec luteis, ad apicem folii sensim minutissime rotundatis, ubique pallide virentibus glaberrimis;* theca in ped. *perbrevi laevi strictissimo* purpureo erecta, *turgide elliptica,* maxime octies sulcata, fusca, dein brunnescens *nitida* firma, sicca oblonga submacrostoma, simpliciter annulata, operc. e basi conica subito recte subulato; perist. duplicis d. *externi in membranam altiusculam truncatam veluti conflati, breviusculi* carnosi opaci, *ad latera haud rotundato-articulati sed aequales,* interni membrana aequilonga *truncata, in dentes haud fissa,* tenera, albida rugulosa; calyptra nuda multifida.

Patria. Guatemala, vulgatissimum et mensi Martii 1848. fruct. maturis et supramaturis: Friedrichsthal? Ex horto dom. Van Houtte copiosissime communicavit Kegel, nunc hortulanus bot. Halensis.

A *M. longifolio* proximo caracteribus laudatis facile distinguitur.

b. *Graciliora.*

β. Folia reflexa.

48b. **M. pyriforme** C. Müll.; *dioicum;* cespites late prostrati, laxe cohaerentes, e ferrugineo lutescentes v. virescentes, rigidi; caulis ascendens *elongatus gracilis* flexuosus, ramis *longis gracilibus* paucis divisus; folia *cirrhato-incumbentia, madore reflexa et apicibus erectis, laxe imbricata, longiuscula, angusta,* e basi erecta longiuscula lutea incrassate areolatà anguste lanceolato-acuminata, reflexa, integerrima, nervo profunde canaliculato in mucronem exeunte, margine inferne convexo vel basi angustissime reflexo, cellulis basi in membranam luteam veluti homogeneam glaberrimam, hic illic in plicis interdum papillis tuberculosis paucis praeditam, conflatis, su-

perne opacis unipunctatis rotundatis; perich. interiora erecta, longius apiculata, ubique e cellulis elongatis in membranam luteam glabram conflatis areolata; theca in ped. *elongato* laevi purpureo flexuoso torto erecta, *e collo longo globoso-ovalis igitur amoene pyriformis, octies plicata, microstoma,* fusca, firma, annulata; perist. d. ext. densissime approximati carnosi robusti opaci rugulosi; calyptra glabra lutea.

Patria. Venezuela, Galipan, 6000 pedes elevatum, ad arbores: Wagner m. Sept. 1849. Inter *M. longifolium* var. *β.* specimina inveni.

Perist. internum membrana tenera flavida videtur. Operculum non vidimus. — Notis designatis primo momento sp. pulchra discernibilis. Thecam *M. Blumei* et caulem *M. longicaulis* habet.

48c. **M. Salakanum** C. Müll.; *monoicum;* cespites humiles densi rigidi pallide virentes; repens, ramis parce dichotomis *humilibus* assurgentibus densifoliis; folia densissime imbricata valde crispatula, madore subito valde reflexa, e basi longiuscula pallida, e cellulis brevibus lunatis *glaberrimis* reticulata, erectâ subito reflexa lanceolato-acuminata, breviuscula, nervo autem canaliculato excedente fuscescente *plus minus pungentia vel breviter aristata integerrima,* complicato-concava, margine convexo, superne cellulis opacis versus apicem sensim rotundatis viridulis; perich. similia breviora, intima erecta, teneriora oblongo-ligulata mucronata, subplicata, intimum minutum ligulatum ubique tenerum evanidinerve; theca in ped. ascendente sed decurvato breviusculo globoso-ovalis microstoma, fusca nitida, glabra, orificio siccitate plicato; perist. d. externi angusti rugulosi pallidi; calyptra basi longius laciniata.

Patria. Java, ad arbores montis Salak: Zollinger sub No. 1426. *Z.*, cum *M. orthosticho* commixtum.

A *M. longicauli* simili notis designatis differt. — Flos masc. inter axillam folii in ramulo tenerrimo vix conspicuo paucifolio terminalis, foliis perig. paucis late

ovatis convolutaceis superne opacis viridulis. — Perist. perfectum et operculum non vidimus.

54. **M. orthostichum** Nees ab Es. I. p. 745.

Patria. Java, monte Salak ad arbores inter *M. Salakanum* sub No. 1426.: Zollinger.

Macromitria non satis nota.

66. **M. scabrisetum** Wils. (Trans. of Linn. Soc. XX. p. 163.); repens; caulis brevis erectus; folia subpatentia, lineari-lanceolata acuta, plicato-carinata, nervo subexcurrente; theca in ped. scabro sulcata (?), operc. longirostro; calyptra glabra. †.

Patria. Insulae Gallopagos, Charles-Island: Charles Darwin, probabiliter ad trunc. arborum in region. editioribus insulae.

Ex observante auctore *Schloth. longifoliae* Hook. (?) simile, forsan in viciniam generis *Trachypus* R. et Hsch. (*Neckera Trachypus* nob.) ponendum!

67. **M. argutum** Hmp. (Linn. XXII. p. 581.); rami erecti breves; folia conferta lanceolata acuta, humida patenti-erecta undulato-torta, sicca uncinato-tortilia erecta, superne argute serrata; calyptra pilosa. †.

Patria. Brasilia, prov. Minarum generalium pr. Caldas: Dr. A. Regnell.

Ex obs. auctoris ab omnibus congeneribus foliis evidenter serratis differt et *M. angustifolio* affine.

Gen. XVI. **Schlotheimia** Brid. I. p. 751.

Calyptra campanulata nec plicata. Perist. d. ext. in spiram revoluti. Caetera Macromitrii.

Sectio I. **Gracilaria** C. Müll. I. p. 751. — Caulis filiformis subteres, foliis appressis, in spiram contortis oblongis laevibus, nec plicatis nec corrugatis.

Sectio II. **Acuminella** C. Müll. I. p. 752. — Caulis robustus densifolius, foliis appressis in spiram contortis lanceolato-acuminatis v. cuspidatis, laevibus vel corrugatis.

4. **S. Campbelliana** C. Müll. I. p. 753.

S. quadrifida Hook. et Wils. in Fl. Antarct. I. p. 126. t. 36.

Sectio III. **Ligularia** C. Müll. I. p. 754. — Caulis robustus densifolius, foliis appressis in sicco contortis, oblongo-ligulatis, corrugatis v. laevibus.

5b. **S. Oerstediana** C. Müll.; *dioica; S. nitidae* similima, sed vix tomentosa, parce fructifera, folia perich. intima *anguste lanceolato-acuminata, inferne maxime plicata, superne haud rugulosa et tenerima membranacea;* theca in ped. perbrevi flavido erecta oblongo-cylindrica leviter sulcata, operc. cupulato recte subulato; perist. d. ext. longiusculi carnosi opaci, medio longitudinaliter exarati, interni in membrana brevissima externos aequantes, *fusci angustissime lanceolati, tenues, ubique striatuli;* calyptra magis fuscidula, apice plus minus scabra.

Patria. America centralis, Costa Rica, inter 5000–8000 ped. elev. mens. Febr. 1847. legit A. S. Oerstedt.

25b. **S. glauca** C. Müll.; *S. trichomitriae* similima, inferne ferruginea, *superne intense glauca,* haud tomentosa, sed *laxissime cohaerens,* humilis, *rigida;* folia caulina e cellulis minus rhomboidalibus, *basi valde incrassatis,* composita; perich. exteriora similia, sed longiora, interiora longius apiculata; theca in ped. *longius exserta* erecta cylindrica fusca nitida laevis, calyptra pilosissima amoene lutea; perist. duplex.

Patria. Venezuela, Galipan altitud. 6000 ped., ad arbores: Wagner m. Sept. 1849.

Operculum deest et perist. imperfectum tantum vidimus.

Hemicyclus II. **Grimmieae.** I. p. 764.

Folia multo laeviora, papillis plerumque obsoletis rarius distinctis. Peristomia constanter colorata, purpurea, rufa vel aurantiaca.

Gen. XVII. **Coscinodon** Spreng. I. p. 764.

Calyptra orthotrichoideo-campanulata haud plicata, theca brevior. Perist. *Grimmiae,* valde cribrosum.

Gen. XVIII. **Glyphomitrium** Brid. I. p. 765.

Calyptra campanulata magna, thecam totam includens, profunde laciniata, plicata. Perist. simpl. d. 16 breviter lanceolati integri linea media exarati per paria approximati.

Gen. XIX. **Brachystéleum** Rchb.

anno 1828! — *Ptychomitrium* Bruch, a Fürnrohr descriptum in Regensb. Bot. Zeit. 1829. II. Ergänzungsblätter, p. 19.

Calyptra *Glyphomitrii*, thecam omnino vel fere obtegens. Perist. *Trichostomi*.

6. **B. Sellowianum** C. Müll. I. p. 769.

Patria. Brasilia, prov. St. Catharinae: Blumenau.

Gen. XX. **Gümbelia** Hmp. I. p. 770.

Calyptra dimidiata. Perist. simpl. dentes 16 lanceolati integri, linea divisurali notati, fissiles, cribrosi et (in Cinclidotonte) in cilia numerosa barbuloidea fissi vel nulli.

Sectio I. **Platystomium** C. Müll. — Theca macrostoma immersa urnigera; plantae orbiculariter pulvinatae terminales; plantae terrestres.

Sectio *Platystomati* generis *Grimmiae* similis.

1. **G. laxa** C. Müll. I. p. 771.

2. **G. ambigua** C. Müll.; monoica exigua pulvinato-caespitosa; caulis parce ramosus; folia oblongo-lanceolata patulo-incurva, apice plus minus cano-pilifera; perich. multo majora erecta, elliptico-lanceolata, *in pilum hyalinum grosse dentatum producta fere suae longitudinis*; theca immersa oblongo-ovalis, operc. *convexo-conico* breviter rostrato; calyptra *cucullaeformis*. ♀.

Schistidium ambiguum Sulliv. Mem. of the Amer. Acad. of Arts and Sc. IV. New. Ser. 1849. p. 170.

Patria. Ad rupes siccas pr. Santa Fé in New-Mexico: Fendler.

A *Grimmia apocarpa* δ. *conferta* caracteribus in natis specifice longe differt.

Sectio II. **Eugümbelia** C. Müll. — Theca emersa ... stoma plus minus ovalis; plantae orbiculariter pulvinatae, ... les; plantae terrestres.

Sectio *Eugrimmiae* generis *Grimmiae* similis.

a. *Pedunculus emergens curvulus.*

3. **G. crinita** Hmp. I. p. 771.

4. **G. Sinaica** Hmp. I. p. 772.

b. *Pedunculus exsertus.*

α. Folia crispula.

5. **G. Abyssinica** Hmp. I. p. 772.

β. Folia conferta.

6. **G. alpestris** Hmp. I. p. 772.

7. **G. caespiticia** C. Müll. I. p. 773.

8. **G. montana** Hmp. I. p. 774.

9. **G. ovalis** C. Müll. I. p. 774.

10. **G. orbicularis** Hmp. I. p. 775.

11. **G. calyptrata** C. Müll. I. p. 775.

Patria. Prope Santa Fé in New-Mexico a F... ler pulcherrime lectam copiose misit Sullivant.

Sectio III. **Cinclidotus** P. B. — Plantae fluitantes ... loideae hydrophilae longiscentes; caulis ramosissimus; folia ... chlorophyllosa carnosa; thecae pseudolaterales macrostomae; ... barbuloideum, liberum vel ad columellam exsertam acutam ...

Plantis huc pertinentibus, bryologo prius ob ... maxime incertam difficillimis, a nobis repetite observ... atque cum omnibus affinibus muscis comparatis, persu... sissimum nunc habemus, ad Grimmiaceas revocandas ... Affines sunt *Grimmiae apocarpae var. rivulari* ali... congeneribus ob texturam folii carnosam chlorophyllos... Coscinodonti perist. dentes partim intensive purpurei ... brosi similes observantur; cum Fontinali et *Neckera* ... *grometrica* (*Wardia* Harv.) locum natalem atque habit... similem tenent. — Sectio pulcherrima.

a. *Fructificatio terminalis.*

12. G. riparia C. Müll.; dioica; caulis laxe cespitosus subhumilis dichotome divisus intense viridis inferne saepius metallico-nitens; folia caulina dense imbricata, madore parum patula, e basi decurrente anguste ligulato-oblonga obtusiuscula, apice parum reflexa, integerrima, carnosula, intense chlorophyllosa, e cellulis densis parvulis subrotundatis robustis areolata, margine ubique cellulis obscurioribus limbata, nervo valido angustissimo subcarinato excurrente percursa, saepius dilacerata; perich. majora, basi infima subvaginantia et laxius reticulata; theca in ped. brevi flavido exserta, turgide ovalis lavida leptodermis, operc. conico acuminato subrecto, cayptra conico-dimidiata glabra sordide fuscidula; perist. d. liberi robusti intense purpurei in cilia 2—4 filiformia stricta siccitate subcontorta fissi, laeves.

Cinclidotus riparius Walk. Arnott in Disp. méth. p. 23. — Br. Europ. Fasc. XVI. Ripariaceae. Cinclidotus, p. 10. t. 2. — *Racomitrium riparium* Brid. Mant. Musc. p. 80. — I. p. 223. — *Trichostomum riparium* Web. et Mohr. Bot. Taschb. p. 190.

β. terrestris; plantae humiliores subcespitosae erectae, minus ramosae, foliis pallidioribus, siccitate contortis, e cellulis minutissimis opacis areolatis, nervo in mucronulum acutum brevissimum exeunte flavido percursis, theca longius pedunculata.

Br. Europ. l. c. — *Barbula cylindrica* Wils. in Phytologist. 1845. p. 282. — *B. Brebissonii* Brid. I. p. 834. — *Trichostomum flavipes* Steudel. Nomencl. Crypt. p. 421. — *Racomitrium flavipes* Brid. I. p. 224. — *Didymodon Cinclidotus* De Not. Specim. de Tortulis Ital. p. 45. — *Desmatodon dichotomus* Brid. I. p. 823. sec. De Notaris in Syllab. Musc. Ital. p. 183. huc pertinet. — Varietas memorabilis, quae primo visu species propria pulchra facile putari potest.

Patria. In rivulis alpinis per Europam temperatam et calidiorem hic illic, rarior. Var. *β.* Forma amphibia, terram amans, in Normandia pr. Falaise: a Brébisson et Romae in Villa Pamphili a Bridel primum lecta.

Pl. masc. gracilior, magis fasciculata, floribus congeneris.

b. *Fructificatio lateralis cladocarpica.*

α. Folia erecto-patula.

13. G. fontinaloides C. Müll.; dioica; caulis cespitosus fluitans elongatus, ramis brevibus fertilibus sterilibus permultis ramosissimus fontinaloideus, viridis; folia laxe imbricata patula, siccitate crispula basi decurrente latiuscule oblongo-lanceolata, inaequ carinata, apice crenulata vel denticulata, margine usque ad apicem fere valde revoluta, carnosa, cellulis minute quadratis maxime chlorophyllosis carnosis areolata, nervo valido viridi excurrente percursa; perich. pauca magna semivaginantia, reticulata; theca in ped. perbrevi vix emersa, ceo-oblonga turgida leptodermis flavida, dein fusca operc. conico acuminato subobliquo magno, calypt nico-dimidiata laevi sordide flavida; perist. d. purpurei laeves longi liberi, in crura 2—4 inaequa liformia longa stricta, siccitate vix contorta fissi.

Cinclidotus fontinaloides P. B. Prodr. p. 52. — Brid. — Br. Europ. Fasc. 16. Ripariaceae. Cinclidotus, p. 9. t. 2. *comitrium fontinaloides* Brid. Mant. Musc. p. 80. — Trich *fontinaloides* Hdw. Musc. Frond. III. p. 36. t. 14. — Tr *fontinaloides* Röhl. Fl. Germ. III. p. 65. — *Fontinalis* Sp. Pl. p. 1572. — Fontinalis triangularis minor, carinata, capsulifera. Dill. Musc. p. 252. t. 32. f. 2. — *Hypnum fon des* Lamarck. Encycl. Meth. Bot. III. p. 164. — *H. antipy β. minus* Neck. Meth. Musc. p. 152.

Patria. In fluviis petrosis et rivulis montanis primis calcareis totius Europae vulgata. — *Aestate.*

Planta mascula floribus permultis glomeratis tissima, Rhacomitriis valde similis, fol. perig. parvis ovatis breviter acuminatis concavis, basi teneris lucide laxe reticulatis, antheridiis clavatis parvulis, physibus multis chlorophyllosis.

β. Folia secunda.

14. G. aquatica C. Müll.; dioica; caulis longissi basi simplex, superne in ramos elongatos ob ramulos tiles multos breves iterum ramosissimos maxime par

strictus, fluitans, apice ut rami subfalcatus, intense viridis; folia laxe imbricata secunda, anguste lanceolato-acuminata, basi haud decurrentia, margine integerrimo erecto, inferne cellulis obscurioribus limbato, nervo deplanato excurrente lato chlorophylloso in mucronulum excurrente, cellulis majuscule rotundato-quadratis chlorophyllosis nunquam carnosis, saepius dilacerata; perich. parum majora, basi subvaginantia laxius reticulata; theca in ped. perbrevi exserta turgide ovalis fusca nitida firma, oper. longiuscule conico-acuminato subobliquo, calyptra conico-dimidiata glabra sordide fuscidula; perist. d. intense purpurei longi laeves ad columellam longe exsertam adnati valde irregulariter fissi teneri.

Cinclidotus aquaticus Br. Europ. Fasc. XVI. Ripariacae. Cinclidotus, p. 8. t. 1. — *Gymnostomum aquaticum* Brid. Mant. Musc. p. 19. — I. p. 93. — *Anoectangium aquaticum* Hdw. Sp. Musc. p. 44. — *A. falcatum* P. B. Prodr. p. 42. — *Hedwigia aquatica* Hdw. Musc. Fr. III. p. 29. t. 11. — *Bryum aquaticum* Gmel. Syst. Nat. II. p. 1331. — *Hypnum aquaticum* Jacq. Fl. Austr. Cat. III. p. 48. t. 290. — *H. nigricans* Vill. Pl. Dauph. III. p. 904. — H. aquaticum nigricans, foliis angustis falcatis. Dill. Musc. p. 334. t. 43. f. 70.

Patria. In alpium et subalpestrium rivulis per totam Europam temperatam et calidiorem, saxis praesertim adhaerens. — *Aestate.*

Planta mascula femineae similis, floribus glomerate aggregatis, fol. perig. e basi ovata laxius reticulata lanceolatis, anth. et paraph. *G. fontinaloidis.*

Species incerta.

? **Gymnostomum (Hedwigia) pachyloma** Mont. (Ann. d. sc. nat. 1838. IX. p. 51.); elongatum fluitans elongate ramosum sordide viride, ramis apice parum curvatis; folia falcato-secunda densiuscule imbricata, late ovata et recurvato-acuminata, nervo crasso viridi excurrente cuspidata, ubique carnosa, limbo maxime incrassato viridi marginata, viridia, e cellulis maxime conflatis difficile discernibilibus minutis quadratis areolata.

Patria. Chile, pr. Valparaiso in aquis calidis vivis: d'Orbigny.

G. aquaticae habitu similis.

Sectio IV. **Scouleria** Hook. — Plantae hydrophilae fluitantes procerae cladocarpicae; caulis distichotomus; folia chlorophyllosa subcarnosa; thecae globosae, operculo in columella exserta apice dilatata persistente; perist. d. 16 in crura 32 fissi integri late lanceolati-subulati, madore inflexi, siccitate erecti breves.

15. **G. Scouleri** C. Müll.; dioica; caulis robustus dichotome divisus intense viridis, foliis saepius dilaceratis veluti setoso-foliosus; folia caulina imbricata, madore reflexa patula, late ovata obtusa, carinata, margine erecto, a medio folii ad apicem usque dentato, ubique cellulis obscurioribus late flaviuscula limbato, nervo valido tersi ante apicem abrupto fusco, cellulis rotundatis incrassatis pallentibus, vel hexagonis pachydermibus, basi magis quadratis parvis teneris pellucidis, in alarum basilarium medio saepius longioribus flavis igitur plicam levissimam veluti sistentibus; perich. similia; theca immersa in ramulo brevi magna globosa turgida pachydermis macrostoma atro-fusca, operc. parvo deplanato breviter conico in columella exserta apice dilatata persistens; perist. d. 16 in 32 crura lanceolata latiuscula rufa integra remote articulata fissi; calyptra glabra.

Scouleria aquatica Hook. in Musc. Americ. Drumm. No. 63! — Cum tab. in Miscell. Bot. I. p. 33. t. 18. — Schw. Suppl. IV. t. 318.

Patria. In aquis fluentibus apud Observatory inlet in ora occidentali Americae borealis, pari latitudine geographica, quae Londinis est, saxis adnascens; nec non in rivulis montium Rocky Mountains et in saxis fluviorum Columbia et Portage River. Scouler primus invenit et Thomae Drummond dedit.

Planta memorabilis, pulchra et distinctissima, habitu, structura folii et columella exserta Cinclidotontibus valde affinis, ex areolatione folii et plicatione spuria *Gümbeliae caespiticiae* similis, certe ad Grimmiaceas pertinens.

Gen. XXI. **Grimmia** Ehrh. I. p. 776.

Calyptra mitraeformis laciniata minuta. Perist. simpl. d. 16 lanceolati vel subulati, trabeculati, linea media exarati, integri vel fissiles, saepius maxime cribrosi.

Sectio I. **Platystoma** C. Müll. I. p. 776. — Theca macrostoma urniformis v. cyathiformis pro more immersa.

6. **Gr. anodon** Br. et Sch. I. p. 780.

Anictangium flaccidum De Not. in Mant. Muscor. ad Fl. Pedemont. p. 46?

9. **Gr. tortuosa** Hook. et Wils. I. p. 782.

Fl. Antarct. II. p. 400. t. 151. f. 7.

Patria. Ad rupes quarzosas siccas montis Verret, alt. 1000′ parce vigens.

10. **Gr. falcata** Hook. et Wils. I. p. 782.

Fl. Antarct. II. p. 401. t. 151. f. 8.

Patria. Ad rupes et saxa cujusdam catarractae.

Sectio II. **Eugrimmia** C. Müll. I. p. 783. — Theca microstoma, in pedunculo recto vel cygneo; folia superne quadrate basi hexagone pellucide reticulata; perist. dentes integri vel 2—3-fidi.

Sectio III. **Dryptodon** Brid. I. p. 797. — Theca et perist. praecedentis; foliorum cellulae parietibus plus minus crenulatis s. sinuatis.

46. **Gr. rupestris** C. Müll. I. p. 803.

Dryptodon rupestris Hook. et Wils. Fl. Antarct. II. p. 402. t. 152. f. 1.

Patria. Ad rupes humidas in declivibus septentr. montis Foster, alt. 400 pedum.

48. **Gr. crispula** C. Müll. I. p. 804; anguste annulata, operc. rostrato recto, theca erecta vel inclinata.

Dryptodon crispulus Hook. et Wils. Fl. Antarct. I. p. 57.

Sectio IV. **Rhacomitrium** Brid. I. p. 806. — Folia Dryptodontis, sed plantae irregulariter ramosae, ramulis lateralibus pluries divisae.

53b. **Gr. contermina** C. Müll.; *dioica; Gr. lanuginosae* simillima, sed minus lanuginosa et folia in pilum an-

gustissimum vix flexuosum subintegerrimum ... laevissima, profunde canaliculata, *ubique fere* ... *valde revoluta,* e cellulis ubique elongatis haud inter... ad parietes punctulate crenulatis areolata.

Patria. America centralis, Costa-Rica, alt. ... 5000—8000′, Febr. lg. A. S. Oersted.

A *Gr. canescente* fol. laevissimis, a *Gr. heterod...* folii areolatione et habitu, a *Gr. crispipila* pilo folii ... gro vix flexuoso certe differt. Sterilis tantum nota.

Grimmiae non satis notae.

1. **Gr. mollis** Br. Europ. (Fasc. 42. Suppl. I. c. ... dioica, pulvinato-cespitosa fragilis laete viridis mollis ... milis multoties dichotoma, apice innovans; folia ... erecto-patentia, e medio conniventia, caulina elong... elliptica obtusiuscula concava, nervo angusto sub ... evanido; perich. multo majora, ex elongato-elliptica ... minata et lanceolata, apiculo hyalino, nervo tenuior... areolatione laxiore; omnium cellulae illis *Gümbeliae* ... *ticiae* duplo fere majores, valde chlorophyllosae, basi ... lucidiores; theca in ped. brevi subemersa elliptica, ... pliciter annulata, operc. e basi convexa in apiculum ... ctum brevem producto; perist. d. longi lineali-lanc... secus lineam divisuralem pertusi, rubelli, trabe... valde granulosi, siccitate reflexi. †.

Patria. In alpe Goustafjeld prov. Tellemarken ... vegiae: Holmgren.

Ex auct. a *Gümbelia cespiticia* proxima differt: th... vix exserta, dentibus longioribus pertusis intense pur... reis, foliis latioribus teretinervibus haud plicatis lax... reticulatis ramisque flagelliformibus teneris remotifoliis. An *Grimmia?* an *Gümbelia?* Calyptra non observata.

II.

MUSCI VEGETATIONIS PLEUROCARPICAE.

SUBCLASSIS II.

Pleurocarpi.

Fructus lateralis, e gemma distincte laterali oriundus.

I. **Distichophylla.**

Folia in series duas oppositas disposita.

Trib. XX. PHYLLOGONIACEAE. II. p. 1.

Gen. I. **Phyllogonium** Brid. II. p. 1.

II. **Tristichophylla.**

Folia in series 4 veluti 3 erectas disposita, dimorpha.

Gen. I. **Hypopterygium** Brid. II. p. 3.

Calyptra dimidiata. Perist. Hypni.

Sectio I. **Euhypopterygium** Brid. II. p. 3. — Plantae stipite apice dendroideo-diviso instructae.

3. **H. filiculaeforme** Brid. II. p. 5.

Patria. Nova Seelandia: W. Stephenson 1843.

4. **H. commutatum** C. Müll. II. p. 6.; folia ad latus unicum tantum limbata, ad alterum immarginata.

H. setosum Wils. in schedulis!

Patria. Nova Seelandia: W. Stephenson 1843.

12. **H. flavescens** Hmp. Linn. XX. p. 95!

H. nivale C. Müll. II. p. 9.

Sectio II. **Rhacopilum** Brid. II. p. 11. — Plantae procumbentes vage irregulariter ramosae.

Gen. II. **Cyathophorum** P. B. II. p. 14.

Calyptra mitraeformis. Peristomium Hypni.

III. **Polystichophylla.**

Folia in series 4 et ultra disposita.

Trib. XXII. MNIADELPHACEAE. II. p. 16.

Folii cellulae parenchymaticae mnioideae.

Gen. I. **Daltonia** Hook. et Tayl. II. p. 16.

Calyptra mitraeformis. Perist. duplex neckeroideum.

1. **D. splachnoides** Hook. et Tayl. II. p. 17. Monoica et hermaphrodita.

Br. Europ. Fasc. 44—45. Daltoniaceae, c. tab.

2. **D. nervosa** Hmp. II. p. 17.

Hookeria nervosa Hook. et Wils. Fl. Antarct. I. p. 142. t. 61.

3. **D. angustifolia** Dz. et Molkb. II. p. 18.

Patria. Java: Blume. Hb. Al. Braun.

3b. **D. contorta** C. Müll.; *monoica;* perpusilla; folia longiuscule lanceolato-acuminata acuta *latiuscula, siccitate et madore contorta, inferne profunde canaliculata supra nervum* canaliculatum ultra medium evanidum tenuem flavidum *plana* subintegerrima, ubique margine plano flavide limbata, e cellulis *densis pachydermibus firmis flavescentibus* pellucidis hexagonis areolata; perich. caulinis multo minora; theca in ped. *perbrevi, e medio jam distincte tuberculoso* erecta, *minute globosa,* basi tuberculosa; perist. *D. angustifoliae.*

Patria. Java: Blume. Hb. Al. Braun.

A *D. angustifolia* proxima caracteribus laudatis facile distinguitur.

Gen. II. **Mniadelphus** C. Müll. II. p. 20.

Calyptra mitraeformis. Perist. duplex Hypni.

b. *Folia marginata.*

a. Folia rotundata plus minus mucronulata.

5b. **M. jungermannioides** C. Müll.; *dioicus;* cespites *humillimi* depressi mollissimi, e viridi lutescentes iricolores, laxissime cohaerentes, radiculosi; caulis *depressus tenerrimus jungermannioides fragilissimus,* brevissime

ramosus, *angustissime complanatus;* folia caulina *e basi breviter spathulata rotunda,* mucrone brevissimo *reflexo vel contorto* terminata, integerrima, caviuscula, limbo flavo ubique circumducta, e cellulis *majusculis* hexagonis aequalibus pellucidis *teneris,* basi paucis laxioribus reticulata, nervo *obsoleto vel brevi tenuissimo* percursa, *caule facillime solventia;* perich. minuta vaginanti-lanceolata; ped. geniculato-ascendens laevis purpureus tenerrimus. Caetera desunt.

Patria. Java: Blume. Hb. Al. Braun.

Omnium congenerum tenerrimus, pusillus, a *Mn. Montagnei* notis laudatis toto coelo distans et habitu *Mn. aurato* magis aemulans. Flos masc. minutissimus eparaphysatus.

6. **M. flaccidus** Hmp. II. p. 22.

Hookeria flaccida Hook. et Wils. Fl. Antarct. II. p. 422. t. 155. f. 5.

8. **M. pulchellus** Hmp. II. p. 23.

Hookeria pulchella Hook. et Wils. Fl. Antarct. I. p. 142. t. 62.

9. **M. spathulatus** C. Müll. II. p. 24; folia flavicantia, dein iricoloria.

Patria. Java, ad truncos putridos montis Prabakti: Zollinger alt. 2500′ legit; sub No. 3512! Primus omnium Blume in Java legit.

Trib. XXIII. HYPNOIDEAE. II. p. 28.

Cellulae folii prosenchymaticae rhombeae vel rotundatae.

Subtr. I. NECKERACEAE. II. p. 29.

Peristomium internum ciliis interpositis nullis.

Gen. I. **Rhegmatodon** Brid. II. p. 29.

Calyptra dimidiata. Perist. duplex; externum hypnoideum breve; interni dentes externos multo superantes lati, in membrana tessellata veluti perforata positi.

Gen. II. **Fabronia** Raddi II. p. 31.

Calyptra dimidiata. Perist. simplex vel duplex. Externi dentes 16 lanceolati, infra orificium oriundi membranacei planissimi coriacei fusciduli; interni ciliiformes totidem rarius observati.

Sectio I. **Eufabronia** C. Müll. II. p. 31. — Plantae tenerrimae haploperistomatae, thecis minutis leptodermibus.

1. **F. pusilla** Raddi II. p. 31.

Br. Europ. Fasc. 44—45, c. tab. Fabroniaceae.

Sectio II. **Anacamptodon** Brid. II. p. 38. — Plantae robustiores diploperistomatae, thecis robustis carnosulis.

1 b. **F. splachnoides** C. Müll. II. p. 38.

Anacamptodon splachnoides Brid. Br. Europ. Fasc. 44—45. Fabroniaceae, c. tab.

Sectio III. **Campylodontium** Dz. et Molkb. II. p. 39. — Caulis densifolius crassus robustus, foliis plicatis.

Gen. III. **Neckera** Hdw. II. p. 40.

Calyptra dimidiata. Perist. duplicis dentes 16 lanceolati trabeculati, pro more pallidi, e lamina duplici compositi, interdum in crura plura irregulariter fissi; interni illis similes vel capillares, in membrana plus minus exserta positi, ciliis interpositis nullis. Peristomium maxime varium, nunc omnino, nunc externum, nunc internum obsoletum.

Sectio I. **Euneckera** C. Müll. II. p. 41. — Caulis complanatus distiche foliosus, pinnatim divisus; folia ligulato-oblonga, pro more elliptica vel rotundate areolata et asymmetrica.

Subsectio I. **Leiophyllum** C. Müll. l. c. — Folia aequalia.

5. **N. complanata** Hüb. II. p. 43.

Br. Europ. Fasc. 44—45. Neckera, p. 9. t. 5.

6. **N. leiophylla** Gümb. II. p. 44.

N. Sendtneriana Br. Europ. Fasc. 44—45. Neckera, p. 10. t. 6. Nomen posterius!

Subsectio II. **Rhystophyllum** Ehrh. II. p. 46. — Folia undulata.

14. **N. Menziesii** Hook. II. p. 48.

Patria. In sylva Thuringiaca prope Tambach in valle „Dietharzer Grund" nuncupata sterilem nuperius detexit Röse, scholae Snepfenthalianae praeceptor.

18. **N. pennata** Hdw. II. p. 50.

Br. Europ. Fasc. 44—45. Neckera, p. 6. t. 1.

β. tenera; l. c. *N. oligocarpa* Bruch. Br. Europ. l. c. t. 2.

18b. **N. chlorocaulis** C. Müll.; monoica; caulis primarius repens, secundarius procumbens virescens, cum foliis teneris pallidis tener, parce irregulariter pinnatus; folia asymmetrico-oblonga subacuminata, planiuscula, brevissime binervia, basi margine subrevoluta, e cellulis brevibus mollibus chlorophyllosis, dein chlorophyllo destitutis, areolata, basi decurrentia, haud auriculata, apice parum denticulata, rugulosa; perich. e basi convolutacea late ovata in acumen longum planiusculum denticulatum attenuata; omnia tenuiter membranacea; theca immersa ovalis majuscula, oblique acuminato-operculata; perist. d. ext. longi trabeculati pallidi laeves medio subpertusi, int. aequilongi filiformes laeves subcarinati.

Patria. Mexico, prov. Mechoacan, Cerro San Andres, 1849. m. Martii: v. Chrismar legit.

A *N. urnigera* simillima theca immersa, a *N. Hornschuchiana* et *Ehrenbergiana* statura gracili tenera, a *N. pennata β. oligocarpa* simillima ramis nunquam flagelliferis primo adspectu distinguitur.

27b. **N. anacamptolepis** C. Müll.; *dioica!* caulis primarius repens nudus; divisiones erectae tenellae pusillae strictae, ramis distichis *brevibus* teneris simplicibus vel iterum pinnatis *eleganter aequaliter et dense pinnatae,* frondiformes, pallescentes, firmiusculae, basi nudae et foliis squamaeformibus *perfecte squarrosis reflexis* parvis, late ovatis reflexe breviter acuminatis, margine valde revolutis integerrimis, e caeteris caulinis simillimis obtectae, caule firmo crasso tenaci praeditae; folia caulina e basi

amplexante brevissima *decurrente late ovata, brevissime acuminata, nunquam ligulata*, apice subcrenulata, transversim rugosa, margine erecto, nervo *pallidissimo ad medium evanido*, cellulis ellipticis incrassatis *pallidissimis* ad infimam basin flavidis; perich. e basi late vaginante inferne flavidissima superne pallidissimâ longiuscule reflexe acuminata, enervia, integerrima, longius areolata.

Patria. Java: Blume. Hb. Al. Braun.

N. Plumula similis, notis cursive impressis toto coelo refugiens, divisionibus inaequalibus flaccidioribus virentibus, basi foliis appressis obtectis primo visu distinguitur.

28 b. **N. cyclophylla** C. Müll.; *dioica;* caulis repens nudus, divisiones erectae strictae firmae, ramis brevibus parum brevissime ramulosis inaequaliter bipinnatae, pallentes, *siccitate subcomplanatae, madore foliis undique insertis et divergentibus patentibus sparsifoliae;* folia caulina angustiuscula, e basi parum latiore amplexante, marginibus paulisper involutis instructâ sensim ligulato-angustata brevissime acuminata, vix crenulata, parum rugulosa, nervo distincto ante apicem evanido percursa, e cellulis rotundatis vel ellipticis pallidissimis, alaribus ad infimam basin vix conspicuis minutis quadratis incrassatis areolata. Caetera desunt.

Patria. Java: Blume. Hb. Al. Braun.

Notis designatis sp. facile distinguenda. Fructus forsan exsertus.

29. **N. crispa** Hdw. II. p. 54.

Br. Europ. Fasc. 44—45. Neckera, p. 9. t. 4.

33. **N. pumila** Hdw. II. p. 56.

Br. Europ. l. c. t. 3.

33 b. **N. Philippeana** Br. Europ. (Fasc. 44—45. Neccera, p. 11. t. 6.); tenella pulchella, ramis pluries divisis, conferte pinnato-ramulosis; folia undulata, dense imbricata, late ovata, apicem versus angustata, in apiculum longiusculum denticulatum flexuosum producta. †.

Patria. Prope Laurvig Norvegiae meridionalis: Blytt detexit; in Pyrenaeis, Vallée de Lys prope Bagnères de Luchon ad fagos: Philippe.

An forma *N. pumilae?*

Sectio II. **Entodon** C. Müll. II. p. 59. — Rami compressi complanati, dichotome divisi decumbentes; folia cochleariformi-concava ovata, binervia, e cellulis rhomboidalibus angustis laevibus areolata; theca exserta lateralis.

43b. **N. Bandongiae** C. Müll.; *monoica;* late prostrata pallide virens, angustiuscule complanata, planissima, breviter pinnatim ramosa; folia caulina dense imbricata, madore parum patula, planiuscula, vix concava, *anguste oblonga obtuse lanceolata,* apice *haud obliquo* denticulata, elongate angustissime areolata, cellulis alaribus laxe quadratis pellucidis intus granulosis paucis praedita, *margine nunquam revoluto,* nervis binis obsoletis brevibus; perich. haud reflexa longe flexuose acuminata, basi laxissime reticulata, enervia, subintegerrima; theca in ped. longiusculo flavo erecta *angustissime cylindrica omnino aequalis,* fusca, operc. conico oblique acuminato; perist. d. ext. breviusculi aurantiaci, nodosiuscule remote trabeculati, linea longitudinali hic illic secedente exarati et perforati, ubique striatuli, int. fusci *maxime angustissime lineares,* inferne tantum fissi et hic illic perforati, vix carinati, multo breviores.

Patria. Java, in prov. Bandong ad arbores: Zollinger cum *Rhacopilo spectabili* commixtam legit et sub No. 1431 Z. edidit.

Inter *N. Dregeanam* proximam et *pallescentem* sedem tenet; a priori notis designatis certe differt.

48. **N. complicata** C. Müll. II. p. 66.

Patria. Matagalpa, Dep. Segovia in Nicaragua, 4500′ alt., leg. A. S. Oersted.

61. **N. Perrottetii** C. Müll. II. p. 72.

Patria. Java: Blume in Hb. Al. Braun.

Sectio III. **Pterogonium** Schw. Suppl. II. I. p. 33; emend. in Synops. II. p. 74. — Plantae pleurocarpicae pusillae tenellae;

caulis decumbens vage pinnulatus subcompressus; folia homomalla cochleariformia, cellulis amoene oblongis, alaribus pulcherrime vesiculaeformibus flavidis, nervis binis obsoletis; theca exserta minutissima supramatura declinata; perist. pro more simplex.

69. **N. hamata** C. Müll. II. p. 78. — Folia *acumine hamato-reflexa;* theca cylindraceo-oblonga erecta vel rarius subinclinata, operc. conico oblique subulato, ped. ubique scabro.

Macroblepharum perforatum Bruch. in Hb. Al. Braun.

Patria. Java: Blume. Hb. Al. Braun.

Sectio IV. **Leptohymenium** auct. vel Schw. emend. — II. p. 80. — Plantae pleurocarpicae filiformes tenerae, ramis tenuibus, nec julaceis nec compressis, sparsifoliis, vage ramosae; folia ovata acuminata concava, e cellulis linearibus interdum papillosis composita; theca exserta.

79. **N. pulvinata** C. Müll. II. p. 83.

Leskea pulvinata Wahlenb. Br. Europ. Fasc. 44—45. Leskeaceae. Leskea, p. 3. t. 2.

Patria. In salicibus prope Christianiam et in monte Dovrefjeld prope Kongsvold: Blytt. — *Auctumno et vere.*

79 b. **N. perpusilla** C. Müll. — Theca in ped. perbrevi fusco vix torto erecta, oblonga parvula, ore siccitate valde madore non coarctata, annulo imperfecto persistente, fusca, sicca subcorrugata, operc. conico oblique rostellato; perist. simplicis dentes interni ciliiformes sedecim haud aequilongi pallidi, madore erecti, sicco statu horizontales, infra orificium oriundi.

Pterogonium perpusillum De Not. in Syn. II. p. 84!

Patria. Nunc in Germania detecta est a pharmacopola Bertram Halensi, qui prope Düben prov. Saxoniae Borussicae ad corticem Pini pinetum hyeme leni anni 1851. fruct. pulchris maturis legit et nobis determinandam communicavit. E distinctissimis, cum perist. interno fabronioideo!

83. **N. repens** Schw. II. p. 87.

Leskea repens Hartm. Sk. Fl. Ed. V. p. 340.

Sectio V. **Leucodon** Schw. II. p. 91. — Plantae pleurocarpicae vel cladocarpicae robustae; caule plus minus robusto et tereti

densifolio dichotome v. pinnatim ramoso, foliis ovatis acuminatis, basi exauriculatis, plerumque secundis et plicatis, cellulis pro more rotundatis; theca exserta et immersa; perist. simplex, duplex vel nullum.

Subsectio I. **Pterigynandrum** Hdw. emend. II. p. 91. — Caulis siccitate perfecte julaceus, perichaetiis longius exsertis, foliis ovate vel lanceolate acuminatis, saepius cochleariformibus, cellulis oblongis v. linearibus elongatis.

103. N. cylindricaulis C. Müll. II. p. 100.

Patria. Costa Rica, reg. montosa, 5000—8000′ alt.: A. S. Oersted.

Subsectio II. **Harrisonia** Spreng. Hmp. II. p. 102. — Caulis teres; theca gymnostoma in ramo brevi veluti terminalis; folia cochleariformi-concava, saepe leviter plicata, cellulis ad parietes crenulatis.

107 b. N. hygrometrica C. Müll.; *dioica;* caulis fluitans, *basi indivisus,* foliis parvis plerumque laceratis obtectus, *superne in ramos fastigiatos breves rigidos obtusos vel apice brevissime cuspidato praeditos sordide virides dendroideo-divisus;* folia caulina dense imbricata, subsquarrosa et vix secunda, erecto-patentia, e basi coarctata *anguste cymbiformi-lanceolata acuta* brevia, margine *haud limbato integerrimo* erecto, superne involutaceo, nervis nullis, cellulis anguste linearibus densis virentibus, *haud crenulatis,* alaribus coarctato-impressis multis laxissimis amplis pellucidis teneris; perichaetia in ramulo fertili longiscente terminalia, foliis late rotundate ovatis acutis, e cellulis pachydermibus incrassatis longioribus areolatis; ped. perbrevis *carnosulus in thecam subcyathiformi-ovalem pachydermem laevem macrostomam sensim incrassatus;* annulus nullus; operc. conicum oblique acuminatum in columella elevata persistens; perist. d. ext. breves fissi rubiginosi rudimentarii, interni nulli.

Wardia hygrometrica Harv. in Hook. Companion to the Bot. Magaz. II. p. 183. t. 15. — Schw. Suppl. IV. t. 314.

Patria. In lapidibus rivuli montani prope Paradise ad latus orientale montis Tabularis Africae australis: Harvey.

Muscus memorabilis, cujus sedes, per multum temporis nobis maxime incerta, juxta *Neckeram Humboldtii* procul dubio vera reperitur. Ab hacce specie caracteribus cursive impressis longe differt. An peristomium quoque internum adsit, nobis in speciminibus nostris observare haud licuit. Calyptra, juvenilis tantum observata, ab auctoribus campanulata quidem descripta est, nos tamen ex affinitate magna *N. Humboldtii* dimidiatam esse putamus.

108 b. **N. Liebmanniana** C. Müll.; hermaphrodita, antheridiis et paraphysibus copiosissimis, archegoniis perpaucis; folia imbricata, longitudinaliter plicata, acuminato-ovata, theca in ped. abbreviato siccitate dextrorsum torte globosa, deoperculata truncata. †.

Braunia Liebmanniana Schimp. in litteris.

Patria. Mexico, Pico de Orizaba: Liebmann.

N. sphaerocarpae ex auctore affinis, foliis imbricatis autem primo visu distinguitur.

Subsectio III. **Euleucodon** C. Müll. II. p. 107. — Caulis teres v. homomallophyllus, dichotome divisus, perichaetiis longe exsertis, foliis ovate v. lanceolate acuminatis concavis distincte plicatis; perist. simplex vel duplex.

117. N. sciuroides C. Müll. II. p. 107.

Leucodon sciuroides Schw. Br. Europ. Fasc. 44 — 45. Leucodonteae; Leucodon, c. tab.

132. N. curtipendula Hdw. II. p. 115.

Antitrichia curtipendula Brid. Br. Europ. Fasc. 44 — 45. Leucodonteae. Antitrichia, c. tab.

131 b. **N. octangula** C. Müll.; *dioica; N. Pöppigianae* simillima, *sed multo robustior*, lutescens; folia caulina *multo majora et latiora, grossius areolata et grossius dentata*, cellulis supra alares ad alas *permultis* rotundatis incrassatis; perist. ext. d. *late et longe lanceolato-subulati, longitudinaliter distincte exarati vel pertusi, interni obsoleti: membrana altiuscula in dentes rudimentarios fissa.*

Pterogonium plicatum Bruch in Hb. Al. Braun.

Patria. Java: Blume. Hb. Al. Braun.

131 c. **N. glyphotheca** C. Müll.; *N. octangulae* simillima; folia angustiora; perist. *d. int. lineares, simplices, e cellularum paucarum simplici serie compositi, quidam inter se connati in formam ovati fornicis, albidi.* †.

Leskea sciuroides Hook. Musc. Exot. t. 175. — Schw. Suppl. II. II. 1. p. 45. t. 166. — Brid. II. p. 286.

Patria. Insula Van Diemen: R. Brown.

A *N. Pöppigiana* peristomio tam externo lato, *N. octangulae* simili, quam interno libero differt.

Subsectio IV. **Lasia** Brid. II. p. 116. — Caulis pinnatim divisus compressus, ramis patentibus rectis, foliis acuminatis laevius plicatis, cellulis oblongis; perichaetia exserta.

Subsectio V. **Leptodon** Brid. II. p. 118. — Caulis compressus, ramis plus minus involutis v. incurvis, foliis rotundato-obtusis, rotundato-areolatis; perich. exserta.

134. **N. Smithii** C. Müll. l. c.

Leptodon Smithii Mohr. Br. Europ. Fasc. 44—45. p. 4. c. tab.

Sectio VI. **Spiridens** Nees ab Es. II. p. 120. — Caulis pleurocarpicus procerus pinnatim parce ramosus robustissimus squarrosifolius, foliis basi vaginatis, inde reflexis, late lanceolatis limbatis, rotundate areolatis; theca emersa peristomata.

Sectio VII. **Climacium** Web. et Mohr. II. p. 121. — Caulis primarius repens, divisionibus stipitatis erectis apice dendroideo-ramosis; theca exserta lateralis.

Sectio VIII. **Pseudopilotrichum** C. Müll. II. p. 123. — Caulis primarius repens, secundarius pleurocarpicus plus minus teres, pendulus elongatus pinnatus, rarius decumbens; folia basi auriculata, laevia vel papillosa, lineari-areolata; theca exserta.

Subsectio I. **Orthostichella** C. Müll. II. p. 123. — Folia in seriebus rectis distinctis circa caulem disposita, e cellulis laevibus disposita.

149. **N. rigida** C. Müll. II. p. 126.

Patria. Costa Rica, 5000—8000′ alt.: A. S. Oersted.

Subsectio II. **Pilotrichella** C. Müll. II. p. 129. — Folia in seriebus indistinctis circa caulem disposita, e cellulis laevibus composita.

156. **N. turgescens** C. Müll. II. p. 131.

Patria. Costa Rica, 5000—8000′ alta: A. S. Oersted.

163b. **N. Buchanani** C. Müll.; caulis pendulus pinnatim ramosus, ramis teretibus; folia densissime imbricata subrotunda concava apice cirrhifera, nervo circa medium evanescente. †.

Isothecium Buchanani Brid. II. p. 363. — *Leskea flexilis* Hook. in Trans. of Linn. Soc. IX. p. 320. t. 28. f. 3.

Patria. Nepal Indiae, ad arbores: Buchanan sterilem legit.

Ex auctore *N. flexili* synonyma, rectius sentiente *Bridelio* species propria, ab illa nervo praesente jam distinctissima.

Subsectio III. **Papillaria** C. Müll. II. p. 134. — Folia in seriebus indistinctis circa caulem disposita, punctulate papillosa.

165. **N. nigrescens** Schw. II. p. 134.

Patria. Costa Rica, inter 5000—8000′ elev. legit A. S. Oersted 1847. Febr.

166. **N. appressa** C. Müll. II. p. 136.

Patria. Brasilia, Sta. Catharina, ad flum. Itajahi: Pabst 1846. sterilem legit ad trunc. arborum.

168b. **N. leuconeura** C. Müll.; *dioica;* caulis primarius repens, secundarius pendulus *longissimus* subpedalis filiformis, in ramos plures pendulos similes divisus, ramulis simplicibus filiformibus attenuatis patentibus vel divaricatis acutis rigidiusculis flexuosis brevibus pinnatus, *sordide lutecens;* folia caulina imbricata, madore parum patula, e basi *valde undulato-plicata valde albescenti-areolata,* profunde canaliculata latiuscule *ovato-lanceolata, breviter acuminata,* integra, basi obsolete crenulata, pallescentia, minute areolata et papillis creberrimis tenerrimis valde punctulata, nervo tenui *pallescente* ante apicem evanido percursa, nunquam cochleariformi-concava, sed supra basin ad apicem usque carinata, margine haud revoluta. Cactera desunt.

Hypnum rhizobolum Nees in Hb. Al. Braun.

Patria. Java: Blume.

A *N. Deppii* caract. designatis longe differt.

168c. **N. semitorta** C. Müll.; *dioica; N. Deppii* simillima, sed sordide lutescens, folia e basi *triplicata* undulato-auriculata *angustâ anguste lanceolata breviter acuminata, acumine semitorto, margine ubique distincte denticulato,* nervo tenerrimo *pallente* brevi. Caetera desunt.

Patria. Java: Blume. Hb. Al. Braun.

169b. **N. Oerstediana** C. Müll.; caulis elongatus *attenuato*-filiformis, ramis multis filiformibus *attenuatis* saepius elongatis et iterum ramulosis valde pinnatim divisus, rigidus, sordide viridis v. lutescens; folia caulina appressa rigida, madore erecto-patentia, e basi dilatata, utrinque alis maxime auriculatis parum undulatis erosis circinnatis praeditâ hastato-lanceolata, speluncoso-plicata et carinata, *acumine subtorto brevi latiusculo terminata,* margine hic illic valde revoluto *ubique distincte serrulato* instructa.

Patria. America centralis, Costa Rica in reg. montosa, elevatione 5000—8000′, ubi mens. Febr. et April. 1847. sterilem legit A. S. Oersted.

A *N. denticulata* proxima, foliis longissime aciculariibus jam distante, notis cursive impressis differt.

176b. **N. praemollis** C. Müll.; dioica; cespites praemolles intricati aurescentes; caulis parum pendulus crassiusculus dense foliosus mollissimus breviter cuspidatus, ramis brevibus inaequaliter pinnatus, subcaudatus; folia caulina sicca et madefacta imbricata, e basi angustiore, auriculis distinctis laxe reticulatis fuscis parum impressis instructâ, late ovata, subito in acumen longum latiusculum denticulatum rectum acutum producta, nec undulata, marginibus subinvolutaceis integris praedita, tenerrime vix conspicue punctulata, planiusculo-cymbiformia, nervis nullis rarius brevissimis binis, cellulis angustissime prosenchymaticis densissimis in membranam luteam veluti conflatis, vix conspicuis; perich. minora amplexantia, stri-

plus minus distincte trifarie foliosus, pinnatus; folia elongate laxe reticulata enervia; theca immersa, peristomio cancellato purpureo vel nullo praedita.

Sectio III. **Meteorium** Brid. II. p. 152. — Plantae pleurocarpicae elongatae pendulae dendrophilae; caulis ubique imbricatim foliosus elongatus pinnatus; folia cordato-amplexicaulia, elongato lineari-reticulata.

Sectio IV. **Cyrtopus** Brid. II. p. 158. — Plantae pleurocarpicae ascendentes robustissimae densifoliae plerumque parce dichotome rarius pinnatim divisae; folia scariosa plerumque plicata ovato-acuminata incrassate elliptice v. elongate areolata; theca exserta v. immersa.

21. P. elegans C. Müll. II. p. 159.

Patria. In monticulis insulae Bima Archip. Indici: Zollinger sub No. 1180. Z. Hookeria. Rarum.

24. P. elongatum C. Müll. II. p. 161.

Hypnum elongatum Hook. et Wils. Fl. Antarct. I. p. 137. t. 60!

Sectio V. **Cryphaea** Brid. II. p. 163. — Plantae pleurocarpicae vel cladocarpicae, rupicolae v. dendrophilae, dichotome v. pinnatim ramosae, subpendulae; caulis teres; folia cochleariformi-concava v. carinata ovata v. lanceolata, rotundate areolata, submollia, nunquam scariosa, basi excisa; theca immersa.

Subsectio I. **Dichotomaria** C. Müll. II. p. 164. — Caulis dichotome divisus; thecae in ramulis brevissimis v. longioribus terminales paucae, gymnostomae globosae.

Subsectio II. **Eucryphaea** C. Müll. II. p. 165. — Caulis plus minus longus distiche pinnatus; thecae peristomatae, plus minus acuminate operculatae, in caule eodem plerumque creberrimae, unilaterales, ovatae v. oblongae.

40. P. Deppei C. Müll.

P. patens C. Müll. II. p. 171. ob nomen jam abusum deleatur.

Species non satis notae.

1. **Cryphaea leiophylla** Schimp. (in Bryol. Europ. Fasc. 44—45. Cryphaeaceae. Cryphaea, p. 5.); folia siccitate haud plicata subnitida, perich. aristata.

Patria. Mexico: Liebmann.

2. **Cr. attenuata** ej. l. c.; caulis elongatus filiformis pinnatus, pinnulis attenuatis.

Patria. Mexico: Liebmann.

Probabiliter ad *Pilotrichum decurrens* nob. revocandum est.

3. **Cr. apiculata** ej. l. c.; folia sicca et humida e basi imbricante patula, longe apiculata.

Patria. Mexico: Liebmann.

4. **Cr. pinnata** ej. l. c.; *Cr. patente* minor, foliis mollioribus, apice minus dentatis, perich. brevius acuminatis, theca breviore oviformi.

Patria. Mexico: Liebmann.

Subsectio III. **Dendropógon** Schimp. II. p. 173. — Caulis elongatus pendulus, ramis alternis toto ambitu dispositis pseudo-pinnatus; thecae in ramis elongatis terminales peristomatae ovatae vel oblongae.

Sectio VI. **Eupilótrichum** C. Müll. II. p. 177. — Caulis dendroideo-pinnatus frondiformis pendulus; folia incrassate rotundato-areolata, cochleariformia; nervi dorso calloso-prominentes et spinaeformes e dorso folii excedentes bini.

Sectio VII. **Pteróbryum** Hsch. II. p. 179. — Caulis primarius repens, secundarius erectus inferne nudus, superne dendroideo-pinnatus, densifolius; folia ubique inserta, cymbiformi-concava, longitudinaliter plicata v. laevia, 1—2-nervia; nervi tenues haud callosi.

62 b. **P. splendens** C. Müll.; *P. convoluto* simillimum, sed divisiones *pusillae dense eleganter pinnatae, ramis brevissimis strictis subsimplicissimis subtruncatis, nec attenuatis breviter incurvo-cuspidatis*, splendidissimae, rigidae pallescentes; folia caulina e basi brevissima angustiore fuscâ oblongo-lanceolata, *planiuscula, nunquam convoluta*, margine integerrimo vel apice obsolete crenulato, erecto, cellulis maxime angustissimis densis pallentibus longiusculis, basi et ad alas basilares quadratis intense fuscis paucis, nervis *binis* obsoletis inaequaliter longis, saepius veluti in unum conflatis, pallentibus, tenuissimis.

Neckera splendens Hsch. et Reinw. in Nov. Act. Acad. Leop. XIV. II. 1829. p. 714!

Patria. Java: Blume, Reinwardt. Hb. Al. Braun.

Sectio VIII. **Erpodium** Brid. II. p. 184. — Plantae cladocarpicae humillimae pusillae tenellae parce divisae, subcompressae v. teretes; folia ovate acuminata, e cellulis laxis amplis bryoideo-rhomboidalibus composita; theca gymnostoma exserta minuta.

Gen. V. **Aulacopilum** Wils. II. p. 186.

Calyptra dimidiata, thecam omnino obtegens e basi more Calymperis includens, plicata; theca gymnostoma.

Subtribus II. HYPNACEAE. II. p. 186.

Peristomium internum ciliis interpositis.

Gen. VI. **Hookeria** Sm. II. p. 187.

Calyptra mitraeformis. Perist. Hypni.

Sectio I. **Euhookeria** C. Müll. II. p. 187. — Cellulae foliorum laxae laeves; folia acuminata pellucida, amoene reticulata, marginata, nervis callosis; caulis decumbens complanatus.

6b. **H. Blumeana** C. Müll.; *hermaphrodita! H. albicanti* simillima, sed folia *late oblonga obtusiuscula breviter acuminata, flaccida*, varie concava, limbo ubique tenuissimo albido, haud incrassato, apice *distincte denticulato, nec angulato*, cellulis ubique magnis amplis, *nec elongato-rhombeis, flaccidis*, pellucidis inanibus, *facile emollientibus*, nervis ante apicem spinae forma abruptis laevibus pallidis *crassiuscule callosis*; perich. e basi late vaginante obsoletinervi longiuscule acuminata, sublimbata integerrima; theca in ped. purpureo laevi apice arcuato nutans, obconica *majuscula* brunnescens, longe recte subulato-operculata; perist. d. ext. *H. laete-virentis*, interni illos aequantes lutei punctulati, scalari-perforati, ciliis rudimentariis; calyptra *H. albicantis.*

Patria. Java: Blume. Hb. Al. Braun.

Sectio II. **Lepidópilum** Brid. II. p. 192. — Cellulae foliorum elongatae plus minus densae et angustae laeves; folia immar-

ginata, nervis plerumque tenuibus vix callosis, interdum nullis; caulis decumbens pinnatim complanatus.

30b. **H. raphidostega** C. Müll.; *dioica;* cespites humiles prostrati pallide virides; caulis mollis *humilis subsimplex* indistincte angustiuscule complanatus; folia caulina *symmetrica, oblongo-lanceolata, longitudinaliter plicata, inaequalia, profunde concava,* subintegerrima, rarius apice obsolete denticulata, *margine medio valde revoluta,* nervis binis tenuibus subcallosis ante apicem evanidis pallidis percursa, e cellulis elongatis laxiusculis mollibus, superne utriculo primordiali longitudinaliter plicato virentibus et angustis densis reticulata, ad innovationes angusta profunde canaliculata contorta acuminata; omnia ad basin infimam cellulis laxis fuscis praedita; perich. minora lanceolato-acuminata obsoletinervia; theca in ped. brevi rubro ascendente laevi erecta elliptica carnosa fusca, exannulata, operc. conico acuminato acuto recto aurantiaco; perist. d. ext. lanceolato-subulati, *lamina externa flavida inferne lata trabeculata, superne in subulam tenuissimam interruptam producti, lamina interna inferne cristata, superne lam. externâ multo latior valde rugulosa; dentes interni in membr. brevi aequilongi pallidi;* calyptra thecam dimidiam obtegens glabra, basi laciniata.

Patria. Java: Blume. IIb. Al. Braun.

A congeneribus ob notas laudatas distinctissima, *H. Deppeanae* habitu dissimilis. Fol. perig. perichaetialibus obtusiora.

Sectio III. **Eriopus** Brid. II. p. 201. — Cellulae densae v. laxae elongatae laeves; folia toto ambitu inserta, sparsa remota magna, haud distiche imbricata, nervis tenuibus, haud callosis, interdum nullis; caulis repens, ramis ascendentibus erectis, haud complanatis.

Subsectio I. **Pterygophyllum** Brid. II. p. 201. — Plantae subcomplanatae.

Subsectio II. **Eriopus** Brid. II. p. 205. — Plantae sparsifoliae.

42b. **H. spinosa** C. Müll.; *H. flexifoliae* similima, sed parum robustior; folia caulina *valde remota,* sicca valde

spiraliter contorta, madore undulata, e basi angustata brevissimâ *latissime ovato-acuminata, acumine longe spinaeformi coronata, margine dentibus longis spinosis inaequalibus ciliato-serrata,* e cellulis *ubique laxissime* rhombeis reticulata, pellucida, immarginata. Caetera desunt.

Patria. Java: Blume. Hb. Al. Braun.

Sectio IV. **Hypnella** C. Müll. II. p. 208. — Cellulae densae elongatae laeves vel papillosae; folia toto ambitu inserta, dense imbricata, nervis callosis v. tenuibus; caulis compressus v. teretiusculus, haud complanatus.

Subsectio I. **Omaliadelphus** C. Müll. II. p. 208. — Caulis robustus plus minus compressus, foliis dense appressis rectis.

Subsectio II. **Euhypnella** C. Müll. II. p. 211. — Caulis tenellus anguste complanatus vel teres, foliis dense appressis rectis.

58. **H. leptopoma** C. Müll. II. p. 215. — Folia brevissime binervia.

Trachypodium lutescens Bruch. in Hb. Al. Braun.

Patria. Java: Blume primus legit.

Subsectio III. **Cupressinadelphus** C. Müll. II. p. 215. — Caulis tenellus compressus, foliis dense appressis falcato-homomallis.

Sectio V. **Callicostella** C. Müll. II. p. 216. — Cellulae foliorum parvae magis aequales v. incrassatae rotundatae laeves v. papillosae; folia ligulate oblonga immarginata, nervis callosis; caulis decumbens compressus.

β. Pedunculus scaber.

67. **H. papillata** Mont. II. p. 219.

68b. **H. Prabaktiana** C. Müll.; *hermaphrodita; fl. scabrisetae* simillima, sed sordide viridis angustius complanata, folia caulina robusta caviuscula, e basi angusta brevissimâ *late ovato-ligulata,* obtusata, breviter acuminata, *apice serrulata,* e cellulis *ubique mollibus grossiusculis, ad infimam basin pellucidis teneris, superne virentibus pachydermibus, laevibus, plus minus pellucidis areolata,* nervis binis pallidis, ad apicem folii spinae forma abruptis, dorso *sublaevibus;* perich. breviora, e basi amplexante *late ovata obtuse lanceolata cymbiformia,* in-

tima breviora subenervia, omnia integerrima, tenuiter pellucide reticulata; theca in ped. longiusculo purpureo *inferne parum superne magis scabro* horizontalis, subgibbose oblonga, ore coarctata, brunnescens, angusta, collo curvato, operc. cupulato longe suboblique subulato, annulo latiusculo; perist. d. ext. angusti, longe subulati, purpurei, linea longitudinali latiuscula flavida exarati, ad latera valde cristati, inflexi, int. flavidi, tenerrime punctulati, latiusculi, superne maxime compressi, vix perforati, illos aequantes, ciliis rudimentariis, vel nullis; calyptra brunnea basi multifida.

Patria. Java, ad terram humidam montis Prabakti: Zollinger sub nom. *Hypnum reticulatum* Dz. et Molkb.? sub No. 3503 Z. In Hb. Al. Braunii a Blume ad Sadjra in flumine lectam observavimus.

Ab *H. papillata* foliis obtusis laevibus jam recedit.

69 b. **H. Oerstediana** C. Müll.; *hermaphrodita; H. pallidae* simillima, sed tenerior, folia teneriora, e cellulis *ubique minutis* areolata, nervis *rufescentibus* vix vel parum dorso scabris; theca in ped. mediocri scaberrimo horizontalis, e collo brevissimo *aequaliter oblonga, ore minori aequali, haud coarctato arcuato-obliquo;* perist. brevis d. ext. rufescentes, linea longitudinali flava latiuscula exarati, intus valde cristati, involuti, int. flavidi illos aequantes angustissimi, superne perforati *pallide aurantiaci, haud flavissimi, tenerrime punctulati, haud laevissimi,* ciliis singulis maxime rudimentariis; calyptra superne scabriuscula, basi multifida, pallida.

Patria. Costa Rica Americae centralis, in reg. montosa inter 5000—8000′ ped. elevationis, mens. Febr. 1848. leg. A. S. Oersted.

Gen. VII. **Hypnum** Dill. II. p. 223.

Calyptra dimidiata. Perist. duplex; externi d. 16 lanceolati, e lamina duplici, externa linea longitudinali exarata, interna plus minus lamelloso-cri-

stata compositi, trabeculati; interni totidem in membrana plus minus exserta carinato-plicata lanceolati, integri vel hiantes, ciliis 1—4 interpositis, saepius rudimentariis sed ex suis cellulis membranae basilaris facile cognoscendis.

I. *Folia bifariam imbricata.*

Sectio I. **Dendroglossophyllum** C. Müll. II. p. 223. — Caulis erectus, inferne indivisus stipitatus, superne dendroideo-pinnatus, ramis compressis; folia plus minus ligulato-oblonga, rotundata vel elliptice areolata.

13b. **H. deflexum** Wils. (in Stephens. Musc. Nov. Seel. Exs.); *dioicum;* caulis longe repens, nudus anceps; divisiones decumbentes vel erectae *inferne nudae ancipites, superne ramis copiosis, prioribus anguste senioribus tenuissime complanatis longissime filiformi-protractis, deflexis* dendroideo-ramosissimae, rigidae, virentes; folia caulina dense disticha, profunde cymbiformi-oblongo-ovata breviter acuminata, integerrima, basi vix excavata, margine ubique erecto, nervis binis vix callosis igitur parum conspicuis ad medium usque productis, cellulis angustissimis pallide virentibus chlorophyllosis, alaribus paucis quadratis parvis chlorophyllosis vel rarius incrassatis fuscis; folia ramorum filiformium minuta enervia, ad caulem crassum posita, magis cochleariformia.

Patria. Nova Seelandia: W. Stephenson 1843. sterile legit.

Notis laudatis facile discernibile.

Incerta species.

1. **Leskea angustifolia** Tayl. (Lond. Journ. of bot. 1847. XX. p. 379.); caulis exiguus erectus subramosus, ramis flexuosis pallide luteo-viridibus nitidis; folia laxe disticha, ex angusta basi lineari-oblonga obtusa apiculata apice dentata ruptinervia substriata, ad ramorum apices arcte compressa, ad basin eorum minuta vel subnulla. †.

Patria. In *Daucea alata* Sm. Jamaicae.

Caulis lineas quatuor longus, interdum apice in ramum flagelliformem vix foliosum prolongatus. *Mnio* (*Rhizogonio*) *Novae Hollandiae* species simillima declaratur. An *Hymenodon?*

Sectio II. **Glossophyllum** C. Müll. II. p. 229. — Caulis planissimus decumbens vel erectus, dichotome v. pinnatim ramosus, compressus, e basi jam foliis magnis obtectus; folia ligulato-oblonga bifariam imbricata planiuscula, elliptice areolata laevia.

Subsectio I. **Spathularia** C. Müll. II. p. 229. — Caulis decumbens pinnatus; folia spathulato-ligulata.

14. **H. trichomanoides** Schreb. II. p. 229.

Omalia trichomanoides Br. Europ. Fasc. 44—45. Neckeraceae; **Omalia**, c. tab.

Subsectio II. **Euglossophyllum** C. Müll. II. p. 231. — Caulis decumbens dichotome ramosus; folia ligulato-acuminata laevia.

Sectio III. **Omalia** Brid. II. p. 233. — Caulis decumbens dichotome vel pinnatim ramosus compressus vel complanatus; folia ovato-acuminata, elongata reticulata, saepius secunda.

Subsectio I. **Vesicularia** C. Müll. II. p. 233. — Caulis hookerioideus eleganter pinnatus; folia laxe reticulata, plerumque asymmetrica, laevia, binervia vel enervia.

20b. **H. aneurodictyon** C. Müll.; *dioicum;* prostratum brevirameum *pallidissimum,* primum virens, complanatum, irregulariter pinnatum, appressum, *flaccidum;* folia caulina patula, *siccitate haud contorta, flaccida,* e basi angustiore oblonga longe cuspidato-acuminata, enervia, integerrima, planiuscula, elongate laxe pellucide reticulata; perich. breviora angustiora longius cuspidata; theca in ped. mediocri purpureo, *apice inclinato scaberulo subhorizontalis, angustissime obconico-oblonga, basi annulate strumosa, longissime subulate oblique operculata,* fusca, medio coarctata, anguste cucullate calyptrata; perist. d. ext. angusti rufi, intus cristati, linea longitudinali lutea valde exarati, int. angusti lutei imperforati, apice subpunctulati, ciliis singulis rudimentariis.

Patria. Java: Blume. Hb. Al. Braun.

Ab *H. reticulato* colore pallidissimo, ab *H. verrucoso* theca longissime operculata, ab *H. cuspidatifolio* et *cri-*

nitifolio foliis nunquam contortis, ab *H. sphaerocarpo* colore et thecae forma primo visu jam distinguitur.

Subsectio II. **Euomalia** C. Müll. II. p. 243. — Caulis plus minus robustus, dichotome divisus; folia plerumque angustius reticulata, symmetrica, laevia, rarius secunda, 1—2-nervia.

I. *Folia uninervia.*

46 b. **H. contorte-operculatum** C. Müll.; *monoicum*; caespites dense prostrati deplanati, pallide virides; caulis arcte adhaerens flexuose repens dichotome divisus longiusculus, anguste complanatus; folia siccitate maxime patula remotiuscula *subcontorta ascendentia*, madore planissima appressa, e basi angustiore vix complicata igitur subasymmetrica, e cellulis alaribus laxiusculis pellucidis chlorophyllosis reticulatâ oblonga *breviter acuminata* integerrima, elongate laxiuscule reticulata, virescentia, nervo unico dimidiato; perich. minora, lanceolata, longius acuminata, *appressa*, pellucidiora, laxius reticulata, *nervo saepius obsoleto*; theca in ped. *elongato* intense fusca laevi tortili tenui erecta *angustissime cylindrica longiuscula*, *intense fusca*, *sicca cartilaginea*, exannulata, operculo *subulato contorte obliquo*; perist. d. ext. angusti *rubiginosi fragiles*, interni breves *angustissimi subciliiformes* lutei, ciliis singulis rudimentariis vix conspicuis.

Patria. America centralis, Costa Rica, in reg. montosa inter 5000—8000 ped., mens. Febr. et Apr. 1847. legit A. S. Oersted.

Ab *H. seminervi* simili notis designatis et ab omnibus congeneribus operculo contorte obliquo primo visu differt. Habitus *H. denticulato* haud dissimilis.

II. *Folia binervia vel enervia.*

77 b. **H. Chrismarl** C. Müll.; *monoicum*; *tenerrimum flaccidissimum* late prostratum intertextum pallide virens, ramis *longissimis flexuosis flaccidissimis nitidulis laxifoliis perangustis*, saepius breviter divisis; folia caulina *laxe distichacea*, *siccitate et madore patula*, symmetrica, longe ovato-acuminata cuspidata, *flaccidissima leviter pli-*

cata, integerrima, caviuscula, e cellulis *elongatis angustis pellucidis laxiusculis,* basi vix quadratis reticulata, parum flexuosa, obsolete binervia, ramulina enervia; perich. basi magis vaginantia, paulisper laxius reticulata, haud plicata; theca in ped. *longissimo flaccidissimo gracillimo* rubente laevi inclinata, *magna oblonga timmioidea, vix arcuata,* olivacea erythrodontia, dein fusca, robusta; perist. d. ext. robusti lati longi rufi, intus parum cristati, interni lati aurantiaci laeves imperforati, ciliis binis cohaerentibus pallentibus interjectis.

Patria. Mexico, prov. Mechoacan, Cerro San Andres, Mart. 1849.: v. Chrismar.

Caracteribus descriptis distinctissimum, *H. trichophoro* haud dissimile.

Subsectio III. **Sigmatella** C. Müll. II. p. 263. — Caulis angustus pinnatim divisus; folia lineari-areolata, papillis obtecta, plerumque binervia.

86 b. **H. bartramiocarpum** C. Müll.; *dioicum?* repens prostratum anguste complanatum luride albidum intertextum, ramis brevibus subsimplicibus compressis obtusiusculis pinnatum; folia caulina dense distichacea, brevia, latiuscule *ovato-ligulata rotundato-obtusata,* concava, margine erecto, ob papillas dorsum folii obtegentes *ciliato-elevatas apice truncatulas* hyalinas *breviter fimbriato-dentato,* nervis binis subcallosis pallidis breviusculis laeviusculis, cellulis angustissime lincaribus, *praeter papillas illas majores sparsas tenerrime seriatim punctulatis,* pallidis, basi laxioribus pellucidis; perich. magis plicata et magis lanceolato-ligulata, basi ovata laxius reticulata obsoletinervi praedita; theca in ped. *longissimo* rigido rubro subinclinata, *e collo brevissimo gibboso-globosa bartramioidea plagiostoma majuscula,* late annulata, fusca, oper. *brevissime conico;* perist. d. ext. lati longi pallidi intus cristati, linea media tenuissima exarati, int. pellucidi.

Patria. Java: Blume. Hb. Al. Braun.

H. truncato simillimum, sed caracteribus laudatis distinctissimum et memorabile. Perist. internum imperfectum vidimus.

bulata integerrima, circinnato-falcata secunda, subenervia, apice flaviora; perich. laevia elongata; theca in ped. brevi laevi *minuta subcylindrica suberecta*, ore constricta. †.

Sauter in Regensb. Diar. Bot. 1850. p. 445.

Patria. Ad rupes calcareas humidas prope Reichenhall Pinzgoviae, ad viam „in der Nähe der Soolenleitung auf der Höhe des Nesselgrabenberges" 1848. auctumn detexit A. Sauter.

Ab *H. cupressiformi* proximo ex observante Sauter notis designatis longe distans.

II. *Folia multifariam toto ambitu caulis imbricata.*

Sectio IV. **Mallacodium** C. Müll. II. p. 320. — Caulis dichotome vel pinnatim divisus, decumbens vel assurgens, mollis; folia elongate pellucide areolata, nunquam papillosa et statu scarioso ipso mollia.

Subsectio I. **Drepanocladus** C. Müll. II. p. 321. — Caules ramique uncinati; folia distincte falcata uncinata, elongate lineari-areolata, laevia, uninervia.

Subsectio II. **Aptychus** C. Müll. II. p. 325. — Caulis vage ramosus, ramis ascendentibus confertioribus; folia concava, erecto-patentia, plus minus secunda, 1—2-nervia, laevia, estriata vel ob marginem revolutum utrinque semel plicata.

198 b. **H. chrysostegum** C. Müll.; *monoicum;* cespites humiles densi lutescentes, *H. Kegeliano* haud dissimiles, sed caulis *vix compressus, apice parum incurvus, haud uncinatus, subtenellus, gracilior;* folia parum secunda, *anguste* oblongo-acuminata, *nunquam asymmetrica,* e cellulis *pallidioribus tenerioribus, apice haud ellipticis, sed ubique aequalibus* areolata, margine anguste reflexa, integerrima, nervis binis obsoletissimis brevissimis, basi flavicantia, cellulis alaribus distinctissimis *majoribus* amoene flavidis vesiculaeformibus; perich. parum longius acuminata, basi valde flavida, distincte binervia, intima minora enervia; theca in ped. breviusculo rutilante laevi tenero erecta vel ob pedunculum superne parum curvatum vix inclinata, *minuta tenella obconica, madore* mi-

nute oblonga, exannulata, olivacea, dein fusca, operc. e cupulata basi longe oblique subulato aureo; perist. d. ext. breves angusti pallidi, intus *valde cristati*, int. aequilongi angustissimi solidi flavidi, ciliis binis breviusculis interpositis.

Patria. Venezuela, Galipan, ad truncos arborum putridos, 4000′ alt., m. Aug. 1849.: Wagner. Inter *H. reptans* specimina nonnulla legimus.

Subsectio III. **Isothecium** Brid. II. p. 356. — Caulis decumbens vage ramosus plus minusve robustus; folia ovato-lanceolata vel acuminata, distincte plicata, e cellulis elongatis mollibus areolata, erecto-conferta, plus minusve subsecunda, plumose imbricata.

279. **H. Vaucheri** Lesq. II. p. 372.

Patria. Sylva nigra, in lapidibus umbrosis calcareis montis Schönberg prope Freiburg, 1850.: A. Braun.

Subsectio IV. **Illecebrina** C. Müll. I. p. 373. — Caulis decumbens illecebrinus vage ramosus turgidus plus minus julaceo-teres; folia estriata.

286. **H. illecebrum** L. II. p. 376.

Patria. In sylvis sublustribus collium montis Sylvae Nigrae Germaniae pr. Freiburg in terra, rarissimum: A. Braun 1850.

Subsectio V. **Cuspidaria** C. Müll. II. p. 378. — Caulis erectus vel assurgens, ramis turgidis cuspidatis.

301 b. **H. sigmatodontium** C. Müll.; *hermaphroditum; H. pungenti* maxime simillimum; sed statura laxius foliosa et minus cespitosa, *folii cellulae haud conflatae*, minus pallidae; perist. d. int. *latiusculi pallidi valde punctulati*, nec angustissimi flavi laevissimi.

Patria. Java: Blume. Hb. Al. Braun.

Ab *H. strepsiphyllo* simili primo aspectu pedunculo perbrevi et infloresc. hermaphrodita differt.

301 c. **H. Braunii** C. Müll.; *dioicum!* cespites *densi* mollusci sordide lutescentes; caulis maxime breviter vage ramosus tener facillime emolliens, micans, apice curvato

brevi secundifolius; folia caulina valde patentia subsecunda, laxe imbricata, brevia, *e basi planiuscula dilatato-lanceolata truncato-amplexante* vix reflexâ in subulam brevem perangustam acutam convolutam attenuata, angustissime lineari-areolata, cellulis alaribus magnis aureis vesiculaeformibus praedita; perich. e basi vaginanti-oblonga apice obtusa et eroso-crenulata subito in acumen breve rectum attenuata, basi laxius, flavide et pellucide reticulata; theca in ped. brevi superne papilloso rubente *inclinata*, minute ovalis rubens; perist. parvi d. ext. lutei, intus cristati, linea longitudinali tenui exarati, int. *angusti* lutei *laeves* perforati, ciliis singulis hyalinis interpositis.

Leskea secunda Al. Br. Hb.

Patria. Java: Blume.

Ab *H. sigmatodontio* caracteribus illustratis, ab *H. strepsiphyllo* pedunculo brevi distincte papilloso, ab *H. pycnophyllo* foliis brevibus strictis jam facile distinguitur.

302. **H. hermaphroditum** C. Müll. II. p. 388.

Patria. Java: Blume primus legit. Hb. Al. Braun.

305 b. **H. scalare** A. Br. (Hb.); procumbens lutescens; caulis repens, ramis humilibus patentifoliis vel *caudato-filiformi-attenuatis appressifoliis*; folia caulina *perangusta, elongate lanceolato-acuminata*, inferne concava, margine subrevoluta, ad acumen subcuspidatum planiuscula margine denticulata, *dorso elevate sparsim papillosa*, pallescentia, enervia, e cellulis angustissimis subserpentinis densissimis in membranam veluti striatam subconflatis, utrinque tribus vesiculaeformibus *maxime intense atro-fuscis;* folia rami caudati linearia angustissima.

Patria. Java: Blume.

Species ob cellulas alares colore atro-fusco opacas memorabilis, areolatione *H. aurei* et habitu *H. pungentis*, notis illustratis nulla alia confundenda, ab *H. pungente* affinibusque foliis margine revolutis refugit.

Subsectio VI. **Plumularia** C. Müll. II. p. 393. — Plantae tenellae, plumulose foliosae; rami assurgentes teneri; folia angusta elongate areolata laevia.

321 b. H. minutirameum C. Müll.; *monoicum; H. intorto* simillimum, *pallidum*, vel parum lutescens; folia *oblongo-acuminata, integerrima, magis plana, latiora*, saepius inaequalia, e cellulis *pallidissimis* elongatis angustissimis molluscis areolata; perich. *longissime cuspidata integerrima*; theca in ped. *brevi* horizontalis *minutissima, oblonga nec urceolata*, breviter conico-operculata; perist. d. ext. breves angusti lutei, int. flavidi *imperforati angustissimi*, breves laeves, ciliis 1—2 interjectis hyalinis.

Patria. Java: Blume. Hb. Al. Braun.

Subsectio VII. **Capillaria** C. Müll. II. p. 408. — Caulis capillaris, ramis capillaribus; folia appressa vel plumulose imbricata.

343. H. Helicodontium C. Müll.

H. tenuirostre C. Müll. II. p. 411. ob nomen jam abusum deleatur.

Sectio V. **Rigodium** Kze. II. p. 418. — Caulis dichotome vel pinnatim ramosus, decumbens vel assurgens, rigescens, firmus, saepius inter folia caulina filis teneris in folia transeuntibus obtectus; folia scariosa vel firma, plerumque tenerrime papillosa, e cellulis brevibus densis firmis areolata.

Subsectio I. **Drepanophyllaria** C. Müll. II. p. 418. — Caulis decumbens vel ascendens, dichotome vel pinnatim ramosus, apice ut rami uncinatus vel curvatus; folia falcata, nunquam squarrulosa.

Subsectio II. **Homomallia** C. Müll. II. p. 425. — Caulis ascendens, dichotome ramosus, apice recto; folia plus minus secunda, nunquam falcata, nunquam squarrulosa.

Subsectio III. **Strigodium** C. Müll. II. p. 434. — Caulis decumbens vel ascendens strigosus dichotome vel pinnatim divisus; folia squarrulose patentia, secunda.

381 b. H. malacobolum C. Müll.; *dioicum;* cespites *rigido-mollusci* sordide lutescentes procumbentes; caulis vage pinnatim ramosus, superficie glabra, ramis inaequalibus *arcuato-flexuosis apice curvatis*, gracilibus; folia caulina squarrosulo-subsecunda, e basi *late hastato-cordatâ lanceolato-acuminata, acumine obliquo longiusculo terminata, plicata*, ubique denticulata, cava, margine erecto, nervis binis brevibus obsoletis, cellulis angustis-

simis lutescentibus brevibus sparsim subpapillosis, duris, alaribus vix ullis minutissimis, perich. valde exserta squarrosa, e basi late vaginante pellucidius et laxius reticulata in acumen reflexum longissimum producta, *superne eroso-dentata;* theca in ped. *brevissculo* rubro laevi *ubique recto inclinata, nunquam nutans, brevis turgide ovalis atro-fusca,* macrostoma; perist. robusti d. ext. lati rufi, int. in membrana alta lutea laevi lati lutei pertusi ciliis hyalinis appendiculato-nodosis interjectis, longis.

Patria. Java: Blume. Hb. Al. Braun.

Ab *H. macrocarpo* proximo notis datis longe differt, e foliorum forma *H. flagellari* affinius.

Subsectio IV. **Anacamptophyllum** C. Müll. II. p. 439. — Caulis ascendens dichotome vel pinnatim ramosus; folia reflexa-squarrosa.

Subsectio V. **Rigodium** Kze. II. p. 444. — Caulis maxime vage ramosus, plerumque valde intricatus; folia remote disposita patentia, haud plicata.

Subsectio VI. **Plicaria** C. Müll. II. p. 444. — Caulis pinnatim vel vage dichotome ramosus, decumbens; folia distincte plicata, rarius subsecunda.

Subsectio VII. **Julia** C. Müll. II. p. 465. — Caulis ascendens, foliis cochleariformibus dense appressis, nunquam secundis, perfecte teres, filiformis.

Sectio VI. **Theliphyllum** C. Müll. II. p. 468. — Caulis ubique foliosus, ramis dichotomis v. pinnatis, superficie inter folia filis in folia transeuntibus plerumque obtecta; folia rotundate areolata, ob papillas plerumque opaca, saepius carnosa.

Subsectio I. **Anomodon** Hook. emend. II. p. 468. — Caulis vage ramosus.

434. H. polycarpum Hoffm. II. p. 469.

Leskea polycarpa Ehrh. Br. Europ. Fasc. 44—45. Leskeaceae. Leskea, p. 2. t. 1.

436. H. nervosum C. Müll. II. p. 470.

Leskea nervosa Myrin. Corollar. p. 52. — Br. Europ. l. c. p. 4. t. 3.

440. H. viticulosum L. II. p. 472.

Anomodon viticulosus Hook. et Tayl. Br. Europ. l. c. Leskeaceae. Anomodon, p. 5. t. 3.

442. H. attenuatum Schreb. II. p. 473.

Anomodon attenuatus Hüb. Br. Europ. l. c. p. 5. t. 2.

443. H. longifolium C. Müll. II. p. 474.

Anomodon longifolius Hartm. Br. Europ. l. c. p. 3. t. 1.

444. H. rostratum P. B. II. p. 475.

Leskea rostrata Hdw. Br. Europ. l. c. Leskea, p. 4. t. 4.

Subsectio II. **Tamariscella** C. Müll. II. p. 482. — Caulis eleganter 1—3-pinnatus.

481 b. **H. schistocalyx** C. Müll.; cespites latissimi planissimi appressi amoene lutescenti-virides, interrupti nec dense conferti; caulis longe repens flexuosus, ramis tenellis minutulis, ramulis brevissimis alternis simpliciter laxe pinnulatis, senioribus superficie filis brevissimis truncatulis obtectis; folia caulina crispula conferta, madore squarruloso-patentia, minuta, latiuscule cordato-lanceolata, brevissima, planiuscula vel subcarinata, *vix scabra*, margine erecto subcrenulato, nervo evanido pallesente, cellulis minute rotundatis opacis; perich. *majuscula, latiuscule lanceolata, in acumen longissimum apice tubulosum articulatum producta, margine ubique in fila longissima crispata confervoidea simplicia fisso, nervo in acumen percurrente*, cellulis ubique teneris pallidis elongatis laxiusculis pellucidis; theca in ped. mediocri purpureo ubique scaberulo apice parum incrassato vix inclinata turgide urceolata brevis, ochracea, operc. cupulato ochraceo oblique rostrato; perist. d. ext. pallidi breviusculo-lanceolati, intus cristati, int. angustissimi flavidi vix hiantes laeves, ciliis singulis brevioribus interjectis.

Patria. America centralis, Nicaragua, ad Matagalpa in Segovia, Decembr. 1847.: A. S. Oersted.

Foliis perichaetialibus ob omnibus congeneribus minutulis prima observatione discernibile et *H. delicatulum* inter *Tamariscellas* minutulas referens.

Sectio VII. **Hypnodendron** C. Müll. II. p. 496. — Caulis basi indivisa, foliis minutis remotis squamaeformibus obtecta, ad stipitis apicem dendroideo-ramosus; rami sparsifolii; folia plus minus ligulate oblonga v. acuminata, elliptice v. lineari-areolata, laevia.

Subsectio I. **Flabellaria** C. Müll. II. p. 497. — Caulis basi indivisus, apicem versus autem sensim in ramos toto ambitu caulis dispositos fasciculatos divisus.

489. **H. alopecuroides** Hook. II. p. 501.

Patria. Insula Sumbawa Archipelagi Indici, ad arbores, saepius ramis longe et tenerrime flagelliferis: Zollinger. No. 1433 Z.

Subsectio II. **Comatulina** C. Müll. II. p. 503. — Caulis summo apice tantum in comam elegantulam dendroideam divisus.

495 b. **H. comatum** C. Müll.; *dioicum;* caulis inferne tomentosus, foliis patentibus obtectus, apice semel vel bis comosus; coma flaccida, e ramis *decurvatis haud cirrhatis pallescentibus* apice attenuatis vel *gemmaceis laxifoliis aequalibus breviter ramulosis* composita, *densissima;* folia ramulina erecto-patentia laxe conferta, *breviora,* e basi rotundata, ad alas parum impressa ovatâ *breviter* lanceolata, superne *dentata, haud grosse serrata,* nervo *tenui* carinato excurrente, apice dorso dentato, lutescente, cellulis pallide lutescentibus angustissimis densissimis *tenerius areolata,* cellulis alaribus paucis minute quadratis, margine erecto *haud incrassato;* perichaetia profunde immersa, turgide gemmacea; fol. perich. e basi vaginante angusta, elongate *anguste* areolata oblonga - acuminata, longiuscule cuspidata, nervo *obsoletissimo,* subexcurrente, margine erecto, ad subulam fuscidulam subdenticulato; theca in pedunculo breviusculo crasso rubro pendula, longiuscule cylindrica arcuata, basi substrumosa rugulosa, siccitate maxime sulcata rubra, operc. longe conico longe subulato flexuoso.

H. comosum Mossman in Coll. Musc. Nov. Seel. No. 720.

Patria. Nova Seelandia, ad truncos arborum et rupes humidas in sylvis prope Kaipara: Mossman 1850 legit.

Notis cursive impressis ab *H. Sieberi* diversum; ab *H. comoso* habitu proximo ramis decurvatis teneris pallidis, foliis exauriculatis tenuinervibus scabrinervibus aliisque notis longe differt.

498. **H. Menziesii** Hook. II. p. 506.

Patria. Nova Seelandia, „Oka forest" ad portum Kaipara, in terra humida prope Wairoa-river: Samuel Mossmann 1850. legit. Coll. No. 719.

499. **H. Junghuhnii** C. Müll. II. p. 507.

Patria. In Java primus sterile inter *H. Reinwardti* legit Blume. Hb. Al. Braun.

500. **H. spininervium** Hook. II. p. 507.

Patria. Nova Seelandia, ad portum Kaipara, Wairoa-river, in sylvis ad sinum limosum: Sam. Mossman 1850. Coll. No. 721.

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Tribus.	Subtribus.	Semicycli.	Genera.	Sectiones.	Subsectiones.	Species: verae.	dubiae.	[illegible]
A. ACROCARPI.								
1. [illegible]	—	—	1	2	—	16	—	4
2. [illegible]	—	—	3	—	—	18	1	7
3. [illegible]	—	—	2	—	—	19	3	11
4. [illegible]	—	—	3	—	—	10	—	7
5. [illegible]	—	—	1	—	—	1	—	1
6. [illegible]	—	—	1	—	—	1	—	1
7. [illegible]	—	—	2	—	—	5	—	4
8. [illegible]	—	—	2	5	—	71	3	17
9. [illegible]	—	—	5	—	—	24	1	9
10. [illegible]	—	—	1	—	—	19	3	10
11. [illegible]	2	—	10	4	—	75	5	36
12. [illegible]	—	—	1	—	—	1	—	1
13. [illegible]	—	—	1	—	—	3	—	2
14. [illegible]	2	—	11	15	—	122	4	66
15. [illegible]	—	—	4	10	—	182	7	67
16. [illegible]	—	—	6	4	—	152	2	54
17. [illegible]	—	—	10	5	—	86	8	36
18. [illegible]	2	—	6	5	—	77	2	37
19. [illegible]	3	2	21	47	—	470	26	225
20. [illegible]	—	—	1	—	—	2	—	1
	9	2	92	97	—	1354	65	596
B. PLEUROCARPI.								
21. [illegible]	—	—	1	—	—	2	—	1
22. [illegible]	—	—	2	2	—	20	4	13
23. [illegible]	—	—	2	—	—	25	2	3
24. [illegible]	2	—	7	32	46	902	20	318
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— 3.	— 7.	perfecta l. perfecta.
— 16.	— 27.	distinctissima l. distinctissimum.
— 21.	— 18.	totam l. totum.
— 29.	— 29.	macrorhizon l. macrorrhizon.
— 33.	— 21.	e lancolata l. e lanceolato.
— 39.	— 10.	breves crassiusculae l. brevia crassiuscula.
— 39.	— 11.	fuscae l. fusca.
— 51.	— 10.	+ — l. plus minus.
— 53.	— 19.	serrato l. serrati.
— 56.	— 31.	bryoidei l. bryoidis.
— 57.	— 10.	bryoidei l. bryoidis.
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— 83.	— 12.	ab imo; Sterilem l. sterile.
— 83.	— 13.	ab imo: blephoro l. blepharo.
— 86.	— 12.	alio l. alî.
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— 114.	— 16.	pluries l. plures.
— 120.	— 13.	ab imo: E. fasciculare l. E. fascicularis.
— 153.	— 8.	ab imo: interni l. externi.
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— 175.	— 16.	serrato-cuspidata l. serrato cuspidata.
— 241.	— 12.	ab imo; Clavis analyticus e perist. ductus l. Clavis analytica e perist. ducta. (mend. graviss. partim typographi!)
— 268.	— 2	ab imo: Salisburgensi l. Carinthiae.
— 271.	— 7	dioicum l. monoicum.
— 298.	— 5.	ab imo: Tozzeri l. Tozeri.
— 299.	— 12.	Tozzer l. Tozer.
— 299.	— 14.	dictur l. dicitur.
— 303.		inter „2. Nervo in aristam producto et 100. Br. imbricatum" intercaletur: a. Peristomium Pohliae.
— 304.	— 11.	a. l. b.
— 305.	— 16.	b. l. c.
— 315.	— 8.	Meyer l. Meyen.
— 358.	— 12.	ctitissimum l. ctissimum.
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—	543.	—	13.	ab imo: utramque operculatam l. utra operculata.
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—	562.	—	3.	ab imo: P. longirostris l. P. Kunzeana.
—	579.	—	15.	ab imo: e cellulis l. cellulis.
—	593.	—	6.	ab imo: Desmatodon l. Dermatodon.
—	604.	—	11.	agragria l. agraria.
—	650.	—	2.	Nebejos l. Nabajos.
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—	806.	—	7.	loco 51 lege 52.

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—	220.	—	11.	β. Pedunculus scaber deleatur.
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—	274.	—	9.	Badnorum l. Baduinorum.
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—	411.	—	1.	H. tenuirostre l. H. Helicodontium.
—	584.	—	17.	contorta l. contecta.

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